THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK,

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

"The Productions of the Earth will always be in proportion to the culture bestowed upon it."

Vol. VI.—No. 3.] 10th mo. (October,) 15th, 1841. [Whole No. 81.

KIMBER & SHARPLESS

PROPRIETORS AND PUBLISHERS,

No. 50 North Fourth Street,

PHILADELPHIA.

Price one dollar per year.—For conditions see last page.

For the Farmers' Cabinet.

High Wages.

It is often said, and almost universally believed, that the high rate of wages paid for labour in this country is a very serious drawback on the profits of farming. "Yes," it is said, "I, too, would have my fields free from weeds, if I could get the labour done for the price they give in Europe:" and even sensible and well-informed persons are often heard to declare that farming can never pay for hired labour, remarking: "There are few weeds that are worth a dollar a day for pulling!" Then there is no truth in our motto, and agriculture is indeed the only business that will not pay interest for capital invested.

But it ought to be shown that the business of agriculture flourishes in every country in proportion to the rate of wages paid; when that is lowest, agriculture should pay the best—but is it so? Is it a fact that farming is more profitable in England, where labour is 37½ cents a day, often as low as 25? Or in Ireland, where the regular farm labourer in the most favourable circumstances, does not receive more than a dollar a week *without diet*, or seventy-five cents *with it;* showing the nature of that diet which, for a whole week, is valued at 25 cents only; eating meat but three times a year, and a single herring serving a whole family at the dinner meal by way of condiment; with oatmeal, only when the old crop becomes bad, or the new is unfit for use? Or in France, where from 8 to 12 cents are the customary wages for men; and for women, who are by far the best labourers—carrying the dung to the fields in baskets on their backs, and breaking clods on the ploughed land with boards fixed to their feet—the wages are still less? Or in Prussia-Poland, that granary of Europe, where, Jacob says, in travelling through Saxony, Poland, Prussia, Austria, Bavaria, and Wurtemburg, he never saw, either in the hotels, the bakers' shops, or private houses, a single loaf of wheaten-bread! where the whole profit arising to the owner of an estate of 6300 acres, in his capacity of owner and tenant, amounted to no more than the clip of his wool; the wages of the best labourers not averaging ten cents a day, with plenty of good land to rent at 28 cents an acre, a larger quantity at 18 cents, and some at 12 cents!—and even at these rents and low wages, the farmers being able to pay no more than their taxes, and often ten years in arrear with them; they themselves often wanting the bare necessaries of life, and feeling happy if they have a surplus to meet the demands annually made for the payment of their local assessments. And thus, on a pattern farm of 3000 acres, managed with skill by the proprietor himself, *with no rent to pay*, no profit had been made for the last four or five years; while on another farm of 4000 acres, within twelve miles of the city of Warsaw, with an excellent road, and renting for seven cents an acre only, on a six years' lease, the tenant is compelled to pay the whole amount of rent out of his private capital! Or is it in Russia?—where, on an estate of 130,560 acres, the agricultural labour, *including the team*, is paid with 12 cents, and other manual labour with 8 cents per day!—where, although the large quantity of produce cannot be disposed of in the country, and in the midst of this plenty, distress is universal, and is felt the most severely *where provisions are cheapest!* There is then famine without dearth, hunger amidst abundance of provisions; farmers without markets, *and labourers without the means to purchase.* In the fall of prices, famine originates; the fall preventing the tenant from paying his rent; the landlord himself, bound by debts and contracts, is unable to make abatement; and then the miserable stock of the wretched tenantry is seized; the labourer is left totally destitute and without employment; and then ensues a scene of famine and despair, of tumult and bloodshed, only to be suppressed by military force! It is in these countries of low wages that the farmers may be seen guiding the plough drawn by a single cow, led by the farmer's wife—a very common team—with implements of the meanest order, the harness without iron or leather; the wagons, mere planks set against upright stakes

fixed to the sides, and the cattle attached by ropes and straw collars.

Now it may be thought very desirable by some, that farmers should be able to retain all the advantages they here possess, and be subject only to the rate of wages paid in the countries of which mention has been made; but such a state of things would not be natural or rational: all would then cultivate the soil for themselves, and things would soon find their level. It is only by paying wages in proportion to the advantages to be derived from farming, that agricultural labourers can be retained in any country; consequently, wages in this country must and will be high. But, after this, the farmer himself derives an *advantage* from high wages; and to be convinced of this, it is only to go and reside in a country of low wages and watch the system as it works: in France, for instance, where the farm labourer receives scarcely sufficient to procure bread at about a cent a pound for himself and family; for out of a population of 32 millions, 22 millions have but six cents a day to defray all expenses—food, lodging, raiment, and education! He has not, therefore, the means of purchasing any of the comforts of life; he eats no meat, buys no clothes, uses no groceries, partakes of no pleasures, carves his shoes out of a block of wood, and braids his own straw-hat—his children going without either; so that, as the agriculturists in every country embrace the larger portion of its inhabitants, the farmers themselves are deprived of such a number of customers, who would, if they had it in their power, purchase at the market the very articles which are raised on a farm, and by which the higher wages paid by the farmer would find their way back to him, after having afforded the means of a greater degree of comfort, and induced a higher relish for them in future. Then the labourer would say, I can now afford to buy shoes, as well as to indulge in the luxury of animal food; and the shoemaker would be able to do the same, after having fitted himself with a garment, by which the tailor can afford to purchase a new hat, after indulging in a few of the luxuries at the market; the hatter also being enabled to *sport* a chicken or a few eggs at his table; and so the system would work, to the benefit of all, but especially to the farmer, the cultivator of the soil, from whence all these things are derived. Now, the low rate of wages in England would at first sight appear advantageous to the cultivator of the soil, but by the time the farmer has paid the poor's rate, which, with the expense of collecting, &c., has sometimes amounted even to the rent of his land, he finds that it would be better for him to afford his labourer the means of living in the shape of wages at once, than support him in a way that does not permit him to expend any portion of it in the articles which he raises, bread only excepted; and he is at length brought to see that if there are no consumers, there can be no purchasers.

With regard to the advantages to be derived from farming in this country over that of England, that is another and a very interesting subject, which may furnish matter for a future dissertation. Vir.

Turning Down Green Crops.

I turned under for wheat-fallow a piece of oats, which, had the crop been harvested, would have given 45 bushels to the acre: the experiment was on about five acres, with the oats removed from two of the contiguous sides of the square; but at the time when the wheat was a fair crop on all the field, no human being could, from the visible effects of the oats turned under, have discovered where the operation began or ended. This is the third experiment which I have made, by turning under a crop of oats just at the time they were beginning to change colour, on recently limed land; and now, being satisfied that it will not do, I shall repeat it no farther: no green crop that I have ever turned under for manure, except clover, has realized my expectations; and even clover, I prefer with the top mown off or grazed. The future effect upon the land I yet desire to witness in the after cultivation; but the oats turned under this season, having been completely decomposed by the great quantity of rain, I do not expect to change my opinion, but expect confidently to remain where I now am, and have been for a long time, *a firm believer in the propriety of surface manuring, rather than turning it under.* I have never been disappointed in weeds or other manure when spread upon the surface and allowed to decompose there, and thus become absorbed by the soil; but when turned under, it bleaches, becomes neutralized, and its effects are lost, going I know not where. It may be, that the direct action of the atmospheric air is essential to give vigour and fertilizing effect and action to these substances — for I know that when turned deep in a thin soil, dark substances lose their colour, and on my land they do not act as manure when thus placed. I have seen an account of the successful experiment of a North Carolina farmer, who, rolling down an oat crop, allowed it to waste on the surface; and this I much desire to see repeated here, for this experiment much better accords with the theory of *surface manuring*, which seems rapidly to be gaining ground everywhere.—*General T. Emory.*

A fellow-feeling with the happy, is happiness.

For the Farmers' Cabinet.

AGRICULTURAL BOTANY.

As there seems to be a laudable spirit of inquiry awakened among the agriculturists, in various parts of our country, respecting the *Plants* which they are most interested in knowing,—and a desire manifested to be able to identify, with certainty, all those which are treated of in the agricultural journals,—I have supposed that the readiest and best mode of accomplishing that object, would be for each intelligent farmer to make a *collection* of all such plants; to have them carefully preserved, and *authentically labelled*, in a convenient volume, to which he could refer, as to a dictionary, or expositor, whenever he was in doubt, or wished to verify any particular species.

A collection of this kind, strictly limited to the plants in which he is immediately interested (whether *useful* or *pernicious*,) would be neither very bulky, nor difficult to procure,—and might be called THE FARMERS' HERBARIUM. One good specimen of each plant, collected when in its most perfect state of developement, would be sufficient. It should be neatly pressed and dried, so as to exhibit its peculiar characters; and each species preserved in a separate sheet of paper,—accompanied with its appropriate *label*, containing the *scientific name* whenever it can be procured from good authority, and also all the *popular*, or *common names*, by which it is known,—designating the localities, or districts, whence such popular names are derived.

The importance of having the *scientific* name,—and, in fact, of knowing and habitually calling each plant by that name,—will be obvious to every one, when it is recollected that the popular names are exceedingly variable and uncertain; and moreover, that the scientific names of plants convey clear and precise ideas of the objects intended, to every well-informed person throughout the civilized world. While there is nothing but endless misapprehension and confusion resulting from the use of local popular names of well-known plants, there is no difficulty at all in comprehending what is meant, when the scientific names are correctly employed. These scientific names can now be readily obtained from the books,—or from respectable botanists, who are always happy to impart information on such subjects. They can be acquired gradually, as opportunities offer; and when once obtained, and committed to writing on the labels accompanying the specimens, will be always at command, even if temporarily forgotten.

With these impressions, and with a view to promote an object which I consider at once useful, interesting, and feasible, I propose to make out a list of such plants as every farmer ought to know, both by sight and by name. Not to swell the list inconveniently, I shall, for the present, limit the catalogue to those plants which daily present themselves to the notice of the agriculturist, in this region, either as valuable occupants of the soil, or as troublesome pests and worthless weeds, in our cultivated fields, meadows, and pastures; omitting those which are usually confined to the gardens. Few persons, I apprehend, will question the utility of an accurate knowledge of the characters, and habits, of both the useful and the pernicious plants. Such knowledge must always be important in the operations of agriculture: and it is just as disreputable for a farmer to be ignorant of the vegetable tribes which claim his attention, as it is for an artist to be unacquainted with the nature of his materials.

The first step towards a knowledge of objects, is unquestionably an acquaintance with their external characters,—an ability to discriminate species, and to recognize each, with certainty, whenever seen. We may then proceed to ascertain their several properties; and, by the use of a precise nomenclature, and accurate definitions, communicate our knowledge to others. This is true of all our researches in the material world, and especially so in what are called the natural sciences. Natural history is emphatically a science of *observation* and *comparison*, by which we learn to identify and distinguish created beings; and no department of the science is more pleasing—as few, if any, are more useful—than the study of the vegetable creation. It is a study peculiarly appropriate to the agriculturist, whose chief concern is with the products of the soil.

As the literary, or professional man, finds both pleasure and advantage in a good stock of classical lore, so our farmers and planters would derive much benefit and gratification from a scientific acquaintance with the objects of their care: and we may indulge the hope that the day is not far distant, when instruction of that kind will be considered an indispensible branch of the farmer's education—when the natural sciences will be regarded as the *classics of agriculture*. To aid in preparing the way for this desirable state of things, is the motive which has prompted this inceptive essay. The catalogue of plants, here furnished, is *calculated*, as the almanacs say, for the *meridian* of Chester county, Pennsylvania; but, with some slight additions and modifications, it may be adapted to any part of the United States. The

scientific names employed, are those adopted in the *Flora of Chester County*—in which work all the plants, here enumerated, may be found described in detail. I have followed the arrangement, also, of that *Flora*—not because it is the best—but because it will be most convenient for those who may choose to refer to it, for the descriptions.

Catalogue of a proposed Farmers' Herbarium, *or of such Plants as Agriculturists ought to be acquainted with.*

There are some *Cyperaceous* plants, such as *Club Rushes, Sedges, &c.*, which are frequent, and rather troublesome, in low swampy grounds, and therefore ought to be known by name and character to the farmer. The following are the most remarkable, in *Chester County*.

1. Cyperus Repens, *Ell.* A very troublesome plant in the Southern States; but happily rare, as yet, in this region.
2. Scirpus Palustris, *L.*
3. S—— Obtusus, *Willd.* } Species of *Club Rush*, frequent in wet grounds.
4. S—— Tenuis, *Willd.*
5. S—— Lacustris, *L.* *Common Bull Rush.* There are several other species of *Scirpus* about our low, wet grounds; and all worthless.
6. Carex Acuta, *L.*
7. C—— Tentaculata, *Muhl.*
8. C—— Multiflora, *Muhl.*
9. C—— Stipata, *Muhl.*
10. C—— Scoparia, *Schk.*

Sedges. A numerous family of worthless plants, of which these species are most common, in our wet meadows, —often forming large tufts, or *tussocks.*

The principal *Grasses*, on the farms of Chester county, noted either for their value, or as being worthless and troublesome, are the following:—

11. Digitaria Sanguinalis, *Scop.* *Crab Grass: Finger Grass.* Frequent in gardens and Indian-corn-fields; rather troublesome.
12. Panicum Capillare, *L.* A worthless grass; common in corn-fields and sandy pastures.
13. P—— Crus Galli, *L.* *Cock's-foot Panic Grass.* A coarse weed-like grass; common about drains of barn-yards, and moist places. There are several other species of *Panicum* in our meadows and pastures; and all worthless to the farmer.
14. Setaria Viridis, *Beauv.* *Green Foxtail: Bottle Grass.* A worthless grass; frequent in corn-fields and pastures.
15. S—— Glauca, *Beauv.* *Foxtail Grass.* A common, worthless grass; usually abundant in stubble fields, orchards, and pastures.
16. S—— Verticillata, *Beauv.* Another worthless species; becoming frequent about gardens and cultivated lots.
17. S—— Germanica, *Beauv.* *Millet: Bengal Grass.* Affording good hay; and is often cultivated, both for hay and for its seeds.
18. Cenchrus Tribuloides, *L.* *Bur Grass: Hedge-hog Grass.* A most pernicious pest in cultivated grounds; abundant in New Jersey—but fortunately rare, as yet, in Chester county.
19. Agrostis Vulgaris, *L.* *Herd's Grass*, of Pennsylvania, but not of New York and New England: often called *Red-top.* A grass of some value, especially in swampy grounds, and often cultivated; but it is not highly esteemed here. There are several other species of *Agrostis*, and of grasses allied to that genus; but they are not generally considered of much value.
20. Phleum Pratense, *L.* *Timothy: Herd's Grass*, of New York and New England; a well-known and valuable grass—generally cultivated in company with red clover.
21. Anthoxanthum Odoratum, *L.* *Sweet-scented Vernal Grass.* Common in meadows and pastures: remarkable for its fragrance; but not very highly esteemed by our farmers.
22. Avena Sativa, *L.* *Common Oats.* Everywhere cultivated.
23. A—— Elatior, *L.* *Oat Grass: Grass of the Andes.* Sometimes cultivated, but not highly esteemed.
24. Bromus Secalinus, *L.* *Cheat*, or *Chess.* A troublesome grass in wheat fields; well known to every farmer.
25. B—— Arvensis, *L.* *Brome Grass.* Frequent in pastures and moist meadows: makes a tolerable hay.
26. Festuca Pratensis, *Huds.* *Meadow Fescue.* A highly valuable grass; growing spontaneously and abundantly, in all our rich meadows and pastures.
27. Poa Pratensis, *L.* *Smooth-stalked Meadow Grass: Green Grass: Blue Grass*, of

Kentucky; but not of other districts. This is decidedly the most valuable of all our pasture grasses; and *comes in*, spontaneously, in all our rich, calcareous soils.

28. P—— Trivialis, *L. Rough-stalked Meadow Grass.* Frequent in moist meadows and pastures. It closely resembles the preceding species, and is a valuable grass; but not so valuable as that other.

29. P—— Compressa, *L. Flat-stalked Meadow Grass: Blue Grass.* Sometimes called *Wire Grass.* Not so much esteemed as the two preceding species; but in good land it affords a valuable, nutritious pasture. It is sometimes rather troublesome in cultivated grounds. There are several other species of *Poa* on our farms, but greatly inferior in value to these, and some of them quite worthless. The *P. Pungens*, which has been spoken of in the journals of late, is mostly a *woodland* species, and not valuable.

30. Dactylis Glomerata, *L. Orchard Grass.* A valuable grass,—more so for pasture than for hay; and often cultivated.

31. Eleusine Indica, *Lam. Dog's-tail Grass.* Very common in lanes and wood-yards. Cattle and hogs are fond of it.

32. Secale Cereale, *L. Common Rye.* Much cultivated in some districts.

33. Hordeum Vulgare, *L. Four-rowed Barley.* Much cultivated.

34. H——— Distichum, *L. Two-rowed Barley.* Ditto.

35. Triticum Sativum, *L. Wheat.* Universally cultivated; and several *varieties*, both awned and awnless, have been successively preferred.

36. T——— Repens, *L. Couch Grass.* In Virginia called *Wire Grass.* A grass of some value; but so difficult to subdue, that it is considered a pest where it abounds. It is rare in Chester county.

37. Lolium Perenne, *L. Ray Grass*, or *Rye Grass.* Often found in our meadows, and sometimes cultivated. It is a grass of considerable value; but not much attended to in this country.

38. Andropogon Nutans, *L. Wood Grass: Indian Grass.* A worthless grass, often abundant in poor, neglected old fields. There are two or three other species, equally worthless, often to be met with.

39. Sorghum Saccharatum, *Pers. Broom Corn.* Well known, and much cultivated. Two or three other species occasionally cultivated.

40. Holcus Lanatus, *L. Feather Grass: White Timothy.* A grass of indifferent quality; frequent in meadows.

41. Leersia Oryzoides, *L. Cut Grass: Wild Rice.* A worthless grass; often rather troublesome along swampy rivulets.

42. Zea Mays, *L. Indian Corn.* Cultivated by every body.

43. Tripsacum Dactyloides, *L. Gama Grass: Sesame Grass.* A stout, coarse grass, which has attracted some notice in the west; but is probably unworthy of culture. It is but little known in Chester county. The 33 *grasses*, here enumerated, are perhaps the best known in this region. About 20 of them may be ranked among the valuable plants (some 12 or 13 being more or less cultivated); and the residue are regarded rather as weeds.

44. Dipsacus Sylvestris, *L. Wild Teasel.* A coarse, biennial weed; quite worthless, and rather a nuisance in some neighbourhoods.

45. Plantago Major, *L. Common*, or *broad-leaved Plantain.* A well-known, worthless weed, in lots, and about houses.

46. P——— Lanceolata, *L. English Plantain: Buck's-horn Plantain: Ripple Grass.* Cattle feed upon this species, and it has been sometimes cultivated for a sheep pasture; but our farmers dislike it—especially on account of its seeds mingling with those of red clover, and reducing the value of the latter.

47. Symplocarpus Fœtida, *Nutt. Skunk Cabbage.* A frequent nuisance in swampy meadows.

48. Lithospermum Arvense, *L. Stone Weed.* A worthless weed; frequent in pastures.

49. Echium Vulgare, *L. Blue Weed: Blue Devils.* A highly pernicious weed; frequent in Maryland; but rare, as yet, in Chester county.

50. Echinospermum Virginicum, *Lehm. Beggar's Lice.* A frequent weed in pastures, and along fence-rows; the burr-like fruit often matting the fleeces of sheep, and manes of horses.

51. Convolvulus Arvensis, *L. Bind Weed.* A worthless vine, introduced into some cultivated grounds, and exceedingly difficult to eradicate.

52. C——— Batatas, *L. Sweet Potato.* A well-known esculent; often cultivated here, but still more in New Jersey, and in the South.

53. Datura Stramonium, *L.* ***Jamestown Weed,*** or ***Jimson: Thorn Apple.*** A well-known noxious weed; in waste grounds, &c.
54. Verbascum Thapsus, *L.* ***Common Mullen.*** A worthless biennial, abounding in the fields of slovenly farmers.
55. V——— Blattaria, *L.* ***Moth Mullen.*** A frequent weed in pastures; but not so troublesome as the preceding.
56. Solanum Nigrum, *L.* ***Night-Shade.*** A noxious weed, in waste grounds.
57. S—— Tuberosum, *L.* ***Round Potato: Irish Potato.*** Universally known, and cultivated, for its valuable *tubers*, of which there are several *varieties*. The *Lycopersicum*, or *Tomato*, is also much cultivated, in gardens, for its esculent *fruit*.
58. S. Carolinense, *L.* ***Horse Nettle.*** A most pernicious weed, and extremely difficult to eradicate; happily rare, as yet, in this region.
59. Lobelia Inflata, *L.* ***Eyebright: Indian Tobacco.*** An acrid weed, frequent in pastures. It has been suspected as the cause of *slabbering* in horses, but the fact is not well ascertained. It is the famous medicine of the *Thompsonian Doctors*.
60. Cuscuta Europæa, *L.* ***Flax Vine: Dodder.*** A pernicious vine, frequent among cultivated flax.
61. Chenopodium Album, *L.* ***Lamb's Quarters: Goose-foot.*** A coarse weed, common in gardens and cultivated lots.
62. Beta Vulgaris, *L.* ***Garden Beet: Sugar Beet.*** A valuable esculent; the *variety*, called *Sugar Beet*, much cultivated for feeding stock in winter. The *B. Cycla*, or *Mangel Wurtzel*, is also sometimes cultivated, but not extensively.
63. Cicuta Maculata, *L.* ***Water Hemlock: Wild Parsnep: Spotted Cowbane.*** A poisonous weed; frequent in wet meadows.
64. Archemora Rigida, *Dc.* ***Cowbane.*** A weed, said to be highly poisonous to cattle; frequent in low, swampy meadows.
65. Pastinaca Sativa, *L.* ***Common Parsnep.*** A valuable esculent; chiefly cultivated in gardens, but often straying into the borders of fields, and becoming a troublesome weed.
66. Daucus Carota, *L.* ***Carrot: Wild Carrot.*** The cultivated *variety* is a valuable esculent; but the *Wild Carrot* is becoming a serious nuisance on many farms.
67. Sambucus Canadensis, *L.* ***Elder Bush.*** A troublesome shrub, in many enclosures—especially along fence-rows, hedges, and borders of fields; giving them a slovenly appearance.
68. Rhus Glabra, *L.* ***Common***, or ***Smooth Sumach.*** A frequent nuisance, in poor old neglected fields, and along fences.
69. R—— Radicans, *L.* ***Poison Vine: Poison Oak.*** A frequent pest along fence-rows, and clinging to old stumps and trees: poisonous to many persons. ***R. Venenata***, *Dc.*, is a very poisonous species, occurring in swampy thickets, along rivulets.
70. Linum Usitatissimum, *L.* ***Common Flax.*** A plant well known for its valuable fibrous bark, and oily seeds; but sparingly cultivated, of latter years, in this district.
71. Allium Vineale, *L.* ***Garlic: Crow Garlic.*** An obnoxious and troublesome plant, especially in dairy pastures, and among wheat crops.
72. Ornithogalum Umbellatum, *L.* ***Ten O'Clock.*** A plant which has escaped from the gardens, and is a vile pest on many farms.
73. Juncus Effusus, *L.* ***Common Soft Rush.*** A worthless plant; common in low grounds, and often forming tufts, or *tussocks*.
74. Veratrum Viride, *L.* ***Swamp Hellebore: Indian Poke.*** A frequent weed in swampy meadows.
75. Rumex Crispus, *L.* ***Sour Dock: Curled Dock.*** A troublesome weed, in moist, rich grounds.
76. R—— Obtusifolius, *L.* ***Bitter Dock.*** Also a worthless, troublesome weed.
77. R—— Acetosella, *L.* ***Sheep Sorrel.*** Another worthless species, and often so abundant as to be a nuisance.
78. Polygonum Aviculare, *L.* ***Creeping Knot Grass.***
79. P——— Erectum, *L.* ***Erect Knot Grass.***
80. P——— Punctatum, *Ell.* ***Water Pepper.***
81. P——— Persicaria, *L.* ***Lady's Thumb.***
82. P——— Pennsylvanicum, *L.*

} All worthless; and often troublesome about houses, lots, and waste grounds.

83. P——— Sagittatum, *L.*
84. P——— Arifolium, *L.*

} These two species are commonly called ***Tear-Thumb***, and are often abundant in swampy meadows.

85. P——— Convolvulus, *L.* ***Climbing Buckwheat.*** Frequent in wheat fields.
86. P——— Fagopyrum, *L.* ***Buckwheat*** The only valuable species of this numerous

genus known here. It is much cultivated in new and hilly grounds, though considered a severe crop on good soils.

87. Agrostemma Githago, *L.* *Cockle.* A troublesome pest among wheat.

88. Phytolacca Decandra, *L.* *Pokeberry Bush.* A well-known, coarse weed; frequent in rich soils and new grounds.

89. Cratægus Crus Galli, *L.* *Cockspur*, or *New-Castle Thorn.* } Both these species of *Cratægus* are employed in *hedging*—the latter to a considerable extent in this county, though the *former* is probably the *better* for that object.

90. C——— Cordata, *Ait.* *Washington Thorn: Virginia Thorn.* }

91. Potentilla Canadensis, *L.* *Cinquefoil.* A worthless little weed; common in poor, old neglected fields.

92. Rubus Occidentalis, *L.* *Raspberry.* } These three species of *Briar*, though yielding pleasant fruit, are rather troublesome intruders in our fields and pastures.

93. R—— Villosus, *Ait.* *Blackberry.* }

94. R—— Trivialis, *Mx.* *Dewberry.* }

95. Rosa Carolina, *L.* *Swamp Rose.* Annoying weeds, in low grounds.

96. Portulaca Oleracea, *L.* *Purslane.* A common weed, in gardens and corn-fields.

97. Papaver Dubium, *L.* *Field Poppy.* An introduced weed; becoming a nuisance on some farms.

98. Hypericum Perforatum, *L.* *St. John's-wort.* A pernicious and troublesome weed; common in pastures.

99. Ranunculus Bulbosus, *L.* *Butter-cup: Crow-foot.* Worthless; and becoming a nuisance in some meadows.

100. Nepeta Cataria, *L.* *Catmint.* A common weed, in waste grounds.

101. N—— Glechoma, *Benth.* *Alehoof: Ground Ivy.* A frequent weed about gardens, lots, and along fences.

102. Lamium Amplexicaule, *L.* *Dead Nettle: Hen Bit.* A common weed, in gardens and cultivated lots.

103. Leonurus Cardiaca, *L.* *Motherwort.* A troublesome pest about gardens, houses, and in waste grounds.

104. Linaria Vulgaris, *Mœnch.* *Toad-flax: Ransted Weed.* A vile nuisance in our pastures and along fence-rows.

105. Verbena Urticæfolia, *L.* *Vervain.* A worthless weed, in our pastures.

106. Camelina Sativa, *Crantz.* *Wild Flax.* A weed; frequent among flax, and other cultivated crops.

107. Capsella Bursa Pastoris, *Mœnch.* *Shepherd's Purse.* A troublesome weed, in cultivated grounds and pastures.

108. Lepidium Virginicum, *L.* *Wild Pepper Grass.* A worthless weed; the reddish-brown *seeds* often occur among *Timothy seed.*

109. Sisymbrium Officinale, *Scop.* *Hedge Mustard.* A common weed, in waste grounds, lanes, and borders of fields.

110. Brassica Campestris, *L.* *Turnip-rooted Cabbage.* A *variety* of this, called *Ruta Baga*, or *Swedish Turnip*, is sometimes cultivated for stock.

111. B——— Rapa, *L.* *Common Turnip.* Generally cultivated. The *B. Oleracea*, or *common Cabbage*, in its numerous *varieties*—and the *sub-species*, called *Cauliflower*, and *Broccoli*—are also much cultivated; but the culture is chiefly confined to gardens.

112. Malva Rotundifolia, *L.* *Running Mallows.* Common weeds, about gardens, houses, and cultivated lots.

113. Sida Abutilon, *L.* *Indian Mallow.* A troublesome weed, in cultivated lots and waste grounds.

114. Medicago Sativa, *L.* *Lucerne.* A valuable plant for pasture and hay in some regions, but very little cultivated in Chester county.

115. Trifolium Arvense, *L.* *Stone Clover: Welsh Clover: Rabbit-foot: Hare's-foot Trefoil.* A worthless species; often abundant in poor old fields.

116. T——— Pratense, *L.* *Red Clover.* Highly valuable, and generally cultivated.

117. T——— Repens, *L.* *White Clover: Dutch Clover.* Common in our fields, and much esteemed as a pasture, though rarely cultivated.

118. Arctium Lappa, *L.* *Burdock.* A well-known nuisance, in waste grounds, &c.

119. Carduus Lanceolatus, *L.* *Common Thistle.* A common pest on good land.

120. C——— Arvensis, *Smith.* *Canada Thistle.* The vilest nuisance which has yet invaded our farms. Though not common, it has got possession in several localities, and will be found exceedingly difficult to eradicate. There are three or four other species among us, but not so troublesome as these.

121. Cichorium Intybus, *L.* ***Wild Succory.*** A worthless weed; becoming frequent in the northern districts of Chester county.
122. Leontodon Taraxacum, *L.* ***Dandelion.*** A common, well-known weed.
123. Sonchus Oleraceus, *L.* ***Sow Thistle.*** A frequent weed, in cultivated lots.
124. Vernonia Præalta, *Willd.* ***Iron Weed.*** A troublesome pest, in moist meadows.
125. Eupatorium Perfoliatum, *L.* ***Thorough-stem: Thorough-wort.*** A frequent weed, in wet meadows and low grounds. Generally known as possessing medicinal properties.
126. Solidago, *L.* ***Golden Rod.*** A numerous genus; of which some of the species abound as weeds, in old fields and along fence-rows.
127. Aster, *L.* ***Star-wort.*** Another numerous family; some of which (as *A. Tenuifolius*, or *Ericoides, L.*) are troublesome weeds in our pastures.
128. Erigeron Canadensis, *L.* ***Horse-weed.***
129. E——— Strigosus, *L.* ***Flea-bane.***
130. E——— Heterophyllus, *Muhl.*

} Worthless weeds; generally abundant in our pastures, and especially in the first crop of upland meadows.

131. Xanthium Strumarium, *L.* ***Clot-bur.*** A common nuisance, in waste grounds, road-sides, &c.
132. X——— Spinosum, *L.* ***Thorny Clot-bur.*** A most vile pest, wherever it appears; rare, as yet, in Chester county.
133. Ambrosia Trifida, *L.* A coarse, worthless weed; in waste grounds, fence-rows, &c.
134. A——— Elatior, *L.* ***Bitter-weed: Rag-weed.*** A common nuisance; generally abundant in stubble-fields, after harvest.
135. Bidens Chrysanthemoides, *Mx.* ***Beggar Ticks.*** A frequent nuisance, in swampy meadows, along rivulets, &c.
136. B—— Frondosa, *L.*
137. B—— Bipinnatifida, *L.*

} ***Spanish Needles.*** Troublesome pests, about gardens and cultivated lots.

138. Anthemis Cotula, *L.* ***Stinking Chamomile: Dog's Fennel: Richardson's Pink.*** A troublesome, fetid little nuisance; common in waste grounds, lanes, and pasture lots.
139. Achillea Millefolia, *L.* ***Yarrow: Milfoil.*** A common weed in our pastures; considered entirely worthless here, though English writers speak of it as being food for cattle.
140. Chrysanthemum Leucanthemum, *L.* ***Daisy: Ox-eye Daisy.*** A vile pest; becoming very abundant on many farms in the north-eastern portion of our county,—and will doubtless soon pervade the whole country.
141. Gnaphalium Polycephalum, *L.* ***Life Everlasting.*** A frequent weed, in old fields and pasture-grounds.
142. Senecio Hieracifolius, *L.* ***Fire-weed.*** A coarse weed; common in new grounds, especially in and around spots where brush heaps have been burnt.
143. Euphorbia Hypericifolia, *L.* ***Spurge: Eyebright.*** An acrid little weed, full of milky juice; common in pastures and cultivated grounds. This, like the *Lobelia*, has been suspected of causing the ***slabbers*** in horses: how justly, has not been ascertained.
144. Urtica Pumila, *L.* ***Rich Weed.*** A common weed, in rich moist grounds, about houses, &c.
145. U——— Dioica, *L.* ***Nettle.*** A well-known pest, in waste grounds, &c.
146. Amaranthus Albus, *L.* A coarse, branching weed; about barn-yards and waste grounds.
147. A——— Hybridus, *L.* A coarse, troublesome weed, in gardens and cultivated lots.
148. A——— Spinosus, *L.* A still more pernicious species; but rare, as yet, in this region.
149. Cucurbita Pepo, *L.* ***Pumpkin.*** Generally cultivated, among Indian-corn, &c., as food for stock.
150. Smilax Caduca, *L.* ***Green Briar.*** A troublesome nuisance, in poor, old neglected fields. The *S. Rotundifolia, L.*, is another well-known pest, in thickets and clearings.

The foregoing Catalogue comprises the more obvious of the plants known to our farmers, either for their usefulness, or as weeds and pests. Of the ***useful plants***, there are but about 35 species in the list, of which some 25 are more or less objects of ***field culture***; leaving the large proportion of more than ***three-fourths*** of pernicious or worthless weeds, to be extirpated, or kept in due subjection. To do this, requires both skill and vigilance; and every one will admit, that an important preliminary step will be to acquire an accurate

knowledge of the plants to be dealt with--to know them by sight, by name, and by character. Having made himself botanically and practically acquainted with the species here enumerated, the intelligent farmer may gradually and readily extend his knowledge to other less important plants, which he finds on his grounds; and also to the various species usually found in the *garden*; as well as to the several kinds of timber trees and shrubs, in the *woodlands*.

Such knowledge will not only be practically useful, in many ways, but will be found highly interesting to inquiring minds. It will, moreover, tend to elevate the intellectual character of agriculturists to that rank which is due to a noble profession, and to which every American farmer should earnestly aspire.

In conclusion, I will add, that, if the suggestions here made should find favour with any of our Chester county farmers, and they should think proper to commence collections of such plants as they find on their premises, whether of an useful or pernicious character, it will give me great pleasure to assist them, to the extent of my ability, in determining the names and properties of those occupants of the soil.

WM. DARLINGTON.

West-Chester, Penn., August 25, 1841.

For the Farmers' Cabinet.

"Lime Ashes."

AN author in a late "Cabinet," who entitles himself "Calx," has, from the experience of "a most respectable and peculiarly correct practical husbandman," essayed to prove that "lime ashes," when placed upon land, has not the power of rendering it more conducive to vegetation. Now, if the above be the fact, why have not most, if not all, of those who are first in order in reference to industry and enterprise, been equally successful in developing the same? I, without hesitation, reply, that their experience, which should be their guide in such matters, has very clearly and satisfactorily expounded to them that the article alluded to is of very considerable value, as an auxiliary in rendering the soil more rich, and consequently more productive.

Quite recently, I heard a confidential friend of mine assert, that his brother had improved his farm as much by the application of "lime ashes" as any other individual ever did by the application of *lime*; and further, I have had the greater part of my life the pleasure of being located in the midst of an intelligent community, and I never before heard its worth contested, for it has generally been known as an article of much value, even as much so as the manure which is formed by putrefied vegetable matter. Many who manufacture lime, either for themselves or others, consider the ashes produced thereby of such great value, that if they possess land whereon they can place it, they are very loath to vend it; for by so doing they realized a greater revenue, than by receiving in cash the price which it demands. Now here is a satisfactory and convincing proof of the ground which I have taken. Well may the author before spoken of refer the subject of his communication to the attention of "some of the scientific correspondents of the Cabinet;" for verily it would require a scientific person to assign a cause, illustrating why a thing is *so*, which in reality is *not* so; but I must forbear.

I admit there are isolated instances in which few, if any, advantages arise from its application, owing to various causes which it would be fruitless for me to attempt scientifically to explain, further than that I believe they may reasonably be ascribed to the existence of a principle in the soil which destroys that which would otherwise occasion valuable effects. "Calx" evidently attributes the failure of the experiment performed by the "respectable husbandman" to the entire worthlessness of the "lime ashes" as a manure; but that idea is rendered void when the experiment succeeds, which has generally been the case, as I have sufficiently remarked. If the position which I have maintained in allusion to this matter be incorrect, I hope that some interested friend may put me in the right; for it is agreeable to the dictates of sound logic, that in physical as well as moral things, truth should be the sovereign ruler. Q. E. D.

Sadsbury, 9th mo. 5, 1841.

Painting Oil-Cloths.

96 lbs. ochre ground in boiled oil, to which add 16 lbs. black paint; this forms an indifferent black. One pound common yellow soap, dissolved in six pints of water over fire, is mixed with this paint, which is laid on the canvass as thick as can conveniently be done, so as to form a smooth coat. Then, two days after, lay another coat of ochre and black, with but little soap, and after another day or two, finish with black, three days being allowed it to dry and harden, when it may be folded without sticking. This mode of painting saves five dollars on every hundred yards of canvass painted. The paint may be recovered from old painted cloths by burning them, sprinkling the ashes with a little water, and grinding them in oil.

For the Farmers' Cabinet.

Management of a Stiff-land Farm.

Mr. Editor,—About two years ago I came into possession of a worn-out farm of five hundred acres, bounded on one side by the Patuxent river, six miles from the bay, and by a bold creek on the other, forming a peninsula. The soil generally is a stiff clay, and runs together like pitch, after being broken up and getting wet. The whole farm is level, although not much of it holds water. It is divided into four fields of 50 acres each, and a small lot of 10 acres, the balance being in wood.

Now, my object in troubling you is, to ask your advice concerning the management of this land. The crops are from 10 to 20 bushels wheat, corn and oats, per acre, and from 500 to 1500 lbs. tobacco. I can buy shell-lime delivered at 12½ cents per bushel, and marl at 4 cents per bushel, digging it out of the bank and hauling it myself from three to six miles. I have, I suppose, 20,000 loads of black peat, or marsh mud, but cannot get it out with a team, although a man can walk on it. I do not see any benefit as yet from plaster, although I do from the use of marl. Had I not better farm, say only 100 acres? but then, what shall I do with the balance?—for as this is one of the neighbourhoods where *skinning* land has arrived to great perfection, I should not like to rent it out. Is it not better to mix vegetable matter with lime and marl? How much lime to an acre? how much ashes? I use a quantity of sea-grass, called here sea-ore; would you recommend me to deposit it in my cow-yard previous to hauling out, or put it on the land green as it comes from the river? In the latter case, a great deal dies away from exposure. I hope to receive some information from you through the medium of your valuable paper.

L. S. Gilliams.

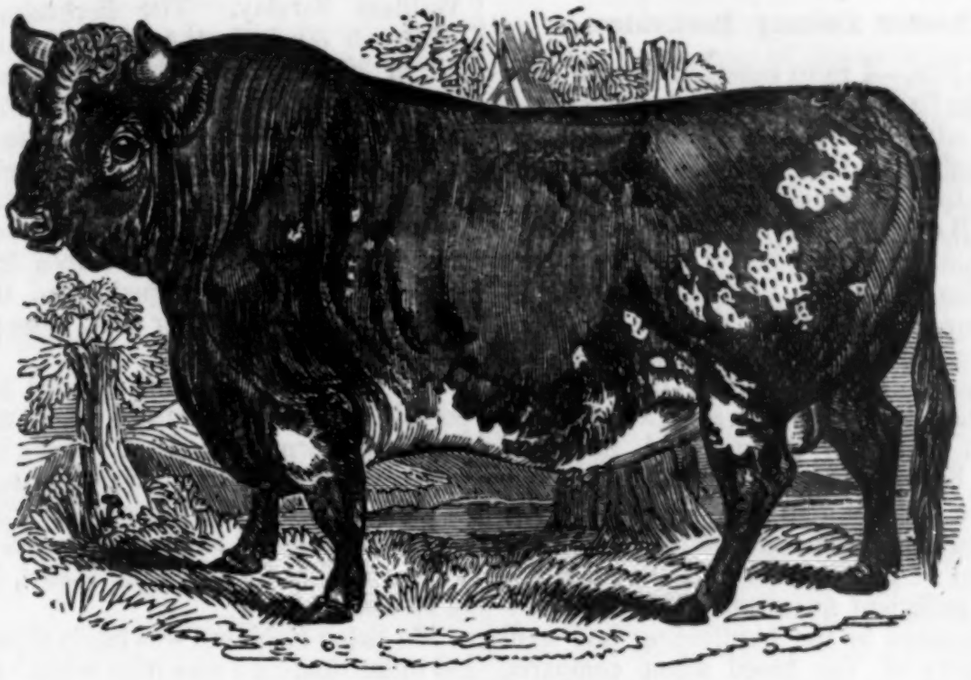
Leonard Town,
St. Mary County, Md., Sept. 21, 1841.

P. S. It is known here to be a fact, that if you cut a small pine-tree in August, and *lean* it against the largest pine-tree in the woods, it will kill it in a few days. It is said here, if you dip a broad woollen string in fish-oil and tie it around the necks of cattle, it will entirely rid them of lice. The following is a curious fact. Last winter I had some ewes and lambs in a shed, and noticing that one of the lambs did not thrive, I set a watch, and discovered one of my cats to come twice a day to suck the ewe. L. S. G.

We would first advise a regular course of draining, for without that, no great improvement ought to be relied upon; afterwards, a regular system of top-dressing the grass lands with a mixture of all the articles enumerated would soon work a perfect renovation in the soil. The less of such land as runs together "like pitch, when wet," that is kept under the plough, the better: circumstances, however, might demand a change of opinion on this head, but, generally speaking, stiff clay soils in the situation above described, would be found a hundredfold more profitable by being kept in grass, top-dressed, fed, and mown for hay when sufficiently improved to yield a crop; and with such abundance of lime marl, and marsh mud, at hand, what is there to prevent the farm from becoming a mine of wealth, provided a market for the produce be within reach. If there is a residence on the estate, and cattle-sheds adjoining, the raising of cattle first, and after awhile grazing them, with the breeding of hogs, would be far the most preferable farm stock; the dung from them being composted with the marsh mud and marl, and after fermentation turned up with a due proportion of lime, and carried abroad as top-dressing, either in the spring or *autumn*, provided the land be not liable to overflow from the river, would very soon recover any soil from the effects of the most severe system of *skinning*. Under present circumstances, however, 50 acres of the land appears a large proportion to be kept under the plough, for nature appears to have intended the "peninsula" for a grazing farm; and while with *one half* the land under the plough, a man may easily *contrive* to break the hearts of his men and horses and himself, the *whole* might be managed as a stock-farm with perfect ease and pleasantness.

We have had much experience in the use of sea-ore—called sea-vraik in some parts—during a residence of some years in the Island of Jersey, England, (of which mention is made in the 3d vol. of the Cabinet, p. 183.) It is there used *universally*, either for turning in for wheat immediately on spreading it green on the surface, or as a top-dressing for meadows in the spring, when, if rain fall, it is dissolved into a jelly-like substance and is washed into the soil, or as fuel, after drying; the ashes, being carefully preserved from the weather, furnishing a top-dressing for wheat and other crops in the spring, of the most exciting nature: it is also deposited while fresh in the cattle-yards, where it becomes mixed with the manure, and is then turned together in the spring to further the process of decomposition; after which it is carried abroad as manure for potatoes, which are greatly benefited by it, the worms, bugs, &c., never attacking them while in their growth; and it is from the use of this stimulating manure that the most astonishing crops are raised, the *average* crop for the Island being 29,077 lbs., or, at 50 lbs. per bushel, 580 bushels of potatoes per acre! so great is the fertilizing quality contained in these ashes, the alkaline principle being *soda*, not *potash*—the ashes of sea-plants yielding soda, those of land-plants potash. It would not be possible to judge of the proper quantity per acre of lime, marl, or ashes, without first knowing the nature of the land, and the component parts of these articles themselves; but as a top-dressing, they might be used to very great extent when well mixed with other substances, without danger of an over-dose.—Ed.

The heart would sink in adversity and affliction if, amidst a deluge of cares and griefs it could not discern the *bow set in the clouds*—the arch of promise—the token of the Divine presence and love.



"ROYAL GEORGE,"

An Ayrshire Bull, imported by, and the property of, J. Struthers, Esq.

This very well-bred animal is three years old; his sire was "Geordie," of whom a highly finished engraved portrait was exhibited at the agricultural meeting of the Philadelphia Society on the 29th and 30th September, and not one of the thousands of those who were present on that very interesting and gratifying occasion but will be struck with the faithfulness of our delineation. He was brought to this country, with several most beautiful heifers of the same fashionable stock, having been selected by the owner in person, without regard to expense; and in company with "Helen M'Gregor"—whose portrait was given in the Cabinet, vol. 5, p. 193—obtained the first premium, as the best bull and cow of the Ayrshire improved breed of Cattle.

The Ayrshire cattle are not yet sufficiently known, and cannot be procured cheap enough or in adequate numbers to undergo a fair trial; some of them have been tried in the London dairies, but as mere milkers, it is admitted that they cannot compete with the long-established metropolitan dairy cow, the Short-horn; for although they may yield as much milk in proportion to their size and food, this is not in proportion to the room which they occupy and the increased trouble which they give from being more numerous, in order to supply the requisite quantity of milk. They will feed kindly and profitably, and their beef will be good, fattening on farms and in districts where others could not be made to thrive at all, except by being partially supported by artificial food. They unite in a great degree the supposed incompatible properties of yielding milk and beef; at the same time it is admitted, that it is upon the inferior soil and in the moist climate of the west of Scotland, that their superiority as milkers is most remarkable; for on their natural food of poor quality they will give milk abundantly and long, often until within a few days of calving; but when they are removed to richer pasture, their constitution seems to change, and they convert their food more into beef. In their own country, a cow of fleshy make, which seldom proves a good milker, may be easily raised to a good weight, but there is a lurking tendency to fatten about them, which good pasture will bring to light; so that, it is often, when an Ayrshire cow is sent from her own country and into good pasture, she loses her superiority as a milker, and begins to accumulate flesh: on this account it is, that the English dealers who purchase Ayrshire cows for the dairy, generally select the coarsest animals, in order to avoid the consequence of change of climate and food. It may be long before the breed will become favourites with the butcher, for the *fifth quarter* will not usually weigh well with them: their fat, however, mingles well with the flesh, and this gives it a more beautiful and marbled appearance, which ought to enhance the price to the consumer. The circumstance of their being in such demand for dairy stock may partially account for their not being thought to succeed so well for grazing, as they are often kept as milkers until they are too old to fatten to advantage, or for their beef to be of the best quality.

To the Editor of the Farmers' Cabinet.

Chester County Berkshires.

Dear Sir,—I have received several numbers of the Farmers' Cabinet, and am very much pleased with it. Mr. Tebbs, who was lately at your office, told me you wished my opinion relative to a contemplated cross of the Chester and Berkshire hog. I have seen only a few specimens of the Chester hog; with those I was pleased, though I did not go into a minute examination of them, and am, therefore, only prepared to give you a conjecture upon the subject. My impression from present recollection is, that the cross will be a good one, and that both Chester and Berkshire will be benefited by it. The fault of the Berkshire stock is, that they have flesh of a hard kind that does not readily yield to the deposition of fat, and the cellular substance is not in sufficient quantity. This last position is evinced by the hardfeeling and want of elasticity of the breed when compared with others.

The cellular substance feels much softer and more elastic than the lean flesh, and if there are cells in the lean flesh, it will give to it considerable softness and elasticity: such lean flesh when fattened will have fat thrown *into* it, or what is generally termed marbled. When the flesh feels hard and inelastic, such flesh when fattened will not be marbled, but will throw the fat upon the outside. Now, if upon examination you find that the cellular substance is more abundant in the Chester hog than in the Berkshire, you may, with much certainty, calculate upon an improvement. Although it is a general thing for the Berkshire breed to "handle" badly, yet it is by no means universal, and there are some uncommonly good handlers among them. And if the breeders of Berkshires would (like the breeders of Durham cattle) attend to this matter, they might soon make a great improvement in the stock.

I some time ago made a proposition to have a Berkshire and Woburn fed by measurement by some disinterested person, and report the result. The proposition was taken by two breeders of Berkshires, but from an accident happening to one of them, only one was fed. The trial was only for ten days, as I could not get the advocates of the Berkshire to feed a longer time. They thought they had the advantage in having a hog that would start sooner to fatten than the Woburn. The sow, Courtenay, weighed, when put up, 123 lbs. more than the Berkshire, so that she had that much more flesh to support out of her allowance. Our experiments (as far as one or two experiments will do it) have proved, 1st, that the Woburns will nearly double the Berkshires in a given time. This was proved in the trial between Isaac and William Barclay. The Berkshire gained 57 lbs. in 30 days, the Woburn gained 107 lbs. in 30 days. 2d, that the Woburns are the smallest eaters,—(see Mr. Weathers' statement, where Patience was the smallest eater); and, 3d, that the Woburns give more weight for the food consumed. (See Mr. Weathers' statement, where Courtenay gained 30 lbs. in ten days, upon 52 lbs. of corn.) Courtenay gained, upon the same allowance, nearly 45 per cent. more than the black Berkshire.

Mr. Taylor's Berkshire gained over two pounds a day upon a little more than five pounds of corn. Mr. A. B. Allen's lost flesh upon ten pounds a day. (See Cultivator, vol. 8. p. 67. Manner of Feeding Stock in Ohio.) 22 sows had given to them 4 bushels of corn a day; this, at 55 lbs. to the bushel, is exactly 10 lbs. each.

Mr. Solon Robinson was lately at my house, but unfortunately I was from home. I wished much to have taken him by the hand, and added some words of encouragement in his present undertaking. I believe the time for forming a National Society *has come*, and I hope its benefits will be equal to the most sanguine expectations of its friends.

I will subjoin Mr. Weathers' statement of the feeding by measure of the Woburn and Berkshire, which you will please publish if you think it contains anything that would be likely to interest the farming community. Permit me to add my best wishes that you may be eminently successful in diffusing knowledge abroad among the agricultural community. Your well-wisher,

Samuel D. Martin.

Colbyville, Ky., Sept. 9, 1841.

A trial of the Fattening Qualities of the Woburn and Berkshire breed of Hogs, when fed equally upon a like allowance.

(A copy.)

There were put under my care on the 13th August, by Dr. Martin and Jas. F. Taylor, two Woburn and one Berkshire* sows, for the purpose of being fed; and I received directions to give each one five pounds of corn a day, and to increase the quantity until I should find what quantity the smallest eater of the three would consume.

On that evening I gave to each one of them two and a half pounds of corn, and the next day five pounds each; and on the 15th nearly six pounds to each. One of the Woburns (Patience) failed to eat all of her allow-

* Mr. Duncan was to have furnished another Berkshire sow for this experiment, but from an accident happening to her, she was not brought. M.

ance, and the next day was very lame, (I suppose slightly foundered,) and their food was again reduced to five pounds each per day until the 20th, when (Patience having recovered) it was gradually increased, so as to give each one fifty-two pounds of corn in the ten days, when they were weighed, and the following is the result.

Mr. Taylor's black Berkshire, Belinda, gained	21 lbs.
Dr. Martin's Woburn, Patience, gained	21 "
Dr. Martin's Woburn, Courtenay, gained	30 "

JAMES WEATHERS, JR.

Clarke Co., Ky., Aug. 23, 1841.

For the Farmers' Cabinet.

Top-Dressing.

MR. EDITOR,—I have a few choice plants in pots which I nurse with a parent's solicitude, for I raised them from infancy, and their education and state of health form with me a business of much importance. Two of them are geraniums, twins, cut from the parent stalk and planted at the same time in different pots; one of these has always flourished and looked healthily: the other, although it has made some progress, has ever had a sickly appearance, and would sometimes die back and again shoot forth, as though it were affected with the chills and fever. An article in the Cabinet, where it is said, "all the trees in a cherry-orchard in Kent died, when the roots had reached to a bed of dung that had been buried, with a view of strengthening their growth," first directed my attention to the state of the earth in my geranium pot, and on turning out the plant, I found that the lower part of it consisted almost entirely of unmixed dung—and there was the secret. I immediately reversed the order of things, placing common mould at the *bottom* of the pot and rotten dung on the *surface*, and from that time the plant has flourished like its twin, and is now as green and healthy.

Now, in my mind, this very trifling circumstance teaches a great lesson in agriculture, and if I had the means, I would follow it out; but alas! I am but a business-man in Third street, dried up to a button by close confinement this hot weather, with my plants in a court-yard 25 feet square — my only plantation in the world—but I take the Cabinet, and read its pages with much interest and increasing pleasure, and my leisure hours are occupied in storing up lessons, to be put in practice when the time arrives that I shall be able to leave all and follow my strong propensity—the cultivation of the earth, and the rearing of stock. This is the extent of my *wish*, and I indulge in the *hope*, for

> "Where is the man,
> However wretched or however poor,
> That will not feed his mind with hope of bliss
> And happiness, reserv'd for him to prove!"

And in view of the experiment above related, I would venture to ask of your intelligent practical readers, what would be the result, if the system of heavy top-dressing were to be adopted *upon principle*, on land confessedly poor, but with a healthy subsoil, neither too wet nor too dry? My opinion is, if such soils were ploughed a very moderate depth, and afterwards subsoiled — that is, stirred in the furrow to a considerable depth but without turning it over, that absolute *fertility* could be communicated most easily and profitably by top-dressing: for I am friendly to the theory put forth in the Cabinet, "that the tap-roots of plants are mainly occupied in sending water from below, while their lateral roots are feeding on the pabulum contained in the surface earth;" that pabulum, however, consisting of matter in solution only, carried down to them by the rains. So the *grit* of the thing is this, if I may be allowed to startle our practical friends with a system so "outre"—it appears to me quite possible that, on some not distant day, it will be found that what are now termed *poor soils*, will become, by subsoiling and top-dressing, equal to the rich — the system of renovation being neither very expensive or laborious. And I am strongly inclined to believe that the different grains can be raised on such soils by superior cultivation of a far better quality than those grown on *deep* and *rich lands*, which are too often relied upon for a heavy return, rather than upon clean and superior cultivation. And to this opinion I have arrived, from a careful examination of the different samples of grain which I every year collect, forming of them a sort of cabinet, when I almost always find that the finest sample has been raised upon the best cultivated soil, without much regard to its native richness; nay, that some of the very best samples have been raised by dint of superior cultivation on comparatively the poorest soils.

It amounts then to this — in all probability the time is not distant when poor soils, within reach of the means of top-dressing, will be found of far more value than the richest, out of the reach of markets—top-dressing supplying all that is required for the production of the most valuable crops, even on poor and sterile soils, provided the subsoil be healthy.

AGROS.

Philadelphia, Sept. 1, 1841.

To declare that you have an implacable enemy, is sometimes to confess that there is one human being towards whom you have not done *all* that the rule of charity requires.

IN a well-ordered state, every member of the social body is useful, but the most useful are the most honourable.

For the Farmers' Cabinet.

Speculation.

Mr. Editor, — You must know that at present I am out of business, but arrangements are making, by which I shall be able to return to that state which alone can give satisfaction to a well-regulated mind—I mean a state of active employment. Some two years ago, I occupied a sweet spot in a distant county, which I had reclaimed from the waste, and by my own hands had made all that I could imagine as pleasant to the eye and grateful to the taste, and could not conceive that I should ever be induced to part with what had been the creation of my own hands and the invention of my own head; but one fatal morning I was prevailed upon, by the offer of a certain sum, to dispose of this Paradise, merely because the purchase-money appeared large, not considering that it was comparatively so only, for to the purchaser, who was rich, it was small indeed for so much comfort, quiet and happiness. Suffice it to say, I could not withstand the temptation, but for a few thousand dollars bartered away my mind's peace and my body's health; so, bringing the wages of my folly into the city, I determined to work *that* instead of my land, which never deceived me, and accordingly purchased with it Bank Stock and Canal Shares, which were at that time low, foreseeing, as I thought, very clearly, that I should soon be able by selling out on a rise, to double my capital; and then, it was only to lay on my oars until a corresponding fall, when, by purchasing with my increased means, I was convinced that I must make money as fast as I could count it, without the labour of ploughing or the drudgery of sowing or mowing; and instead of only one harvest a year, it would be easy to secure a dozen in that time, by *working my capital:* I therefore purchased in haste, and have ever since repented at leisure, for I have never yet had an opportunity to sell—not one harvest have I therefore made in two years, and shall be compelled to come out minus, to a fearful extent.

Nevertheless, perhaps I ought not to count it all loss; I have had experience for my money, although it has been dear bought; and during this state of apathy and inanition, I have at my leisure cast up many cool thoughts, made numerous nice calculations, and worked many long sums in this my school of adversity; and if I do not derive wisdom from the exercise, it is my own fault. I have therefore made up my mind, set the brokers to sell out, and intend to make a virtue of my necessity. And first, to show that I am grown wise by experience, I will not again purchase uncleared land, and have all the chopping and hauling and grubbing and burning over again—no, I will seek out some spot where its owner has done this for me, and is desirous of leaving it, to commence anew the labour of a horse! Here, I will sit down and make the best of it, contenting myself with half the number of acres I formerly occupied and thought too few, and try to double my crops instead of my land, which I seem now to believe is quite possible; making my animals to work for me, and take the produce to market in the form of beef, and mutton and pork — but not in butter; making the most of my small means by adopting the soiling system—carrying my crops to the cattle, and not them to the crops; ploughing very sparingly, and chiefly confining myself to top-dressing, a system which seems to be commanding much attention from farmers generally, and from whence I have reason to expect that much and lasting benefit will arise, especially when practised upon meadow-land by means of compost carefully prepared for the purpose—a practice which is but little known and too generally neglected or despised. A friend has just informed me, in answer to a question as to his experience in top-dressing, that in South America—near Rio—they are accustomed to renovate their worn-out meadow and pasture-land by a singular mode of management, for instead of ploughing them up and turning over the sod, to be cultivated and cropped in the usual manner, before returning to grass, by which much expense is incurred and time and labour lost, they skim-plough, by means of two sharp coulters fixed one on each side of the beam of the plough and welded to an iron foot, kept sharp also; so that the land is cut off at the sides and bottom—say about two or three inches deep—and is then suffered to fall back, without turning, upon the place from whence it had been cut, after passing over the share; the surface is then heavily top-dressed, and the rains which fall, penetrate to the bottom of the loosened sods, carrying the dung in solution to the roots of the grass, and causing a spring of fresh verdure, quite astonishing to those who never before witnessed the operation, incalculably more advantageous than the plan of cutting up the surface of worn-out meadow by means of the sharpened teeth of the harrow, which is so often advised to be performed.

Now, in the season of my prosperity, I believe if I had heard of such a plan, I should have set it down as *book-farming;* but the time for thought and reflection which I have experienced, and which I hope I have improved, has convinced me that there is as much scope for *both* in farming, as in any other of what are called the *arts and sciences;* and I begin to feel as though it might

be eventually for my good, that I have been chastened: at least, it is my intention to try and see if I cannot make *a virtue out of my necessity*. I have, therefore, renewed my subscription for the Cabinet, and hope never more to go astray.

A Subscriber Anew.

Philadelphia, Aug. 29, 1841.

For the Farmers' Cabinet.

The Berkshires.

In the midst of all kinds of conflicting testimony on the all-absorbing subject of Hog-breeding, and which has most assuredly been prosecuted much farther than the nature of the business demanded, we are quite refreshed by the following very simple and judicious remarks by the author of "The American Swine-breeder," H. W. Elsworth, Boston, which go to show very clearly how much money, time and useless confabulation might have been saved, if we could only have prevailed upon ourselves to look the animal *calmly in the face*, and take his dimensions and weight, his probabilities and propensities into account, without throwing ourselves into a state of fever! But in this, as in many other things, we Americans delight to go the whole Hog or nothing. The excellent writer says—

"Berkshires are a production of *art*, not of *nature*; and, unless the same art is used to *preserve* them that was exercised to *produce* them, they will retrograde much faster than they advanced. The breeder's rule, upon which all his operations are founded, is, that like begets like; he therefore carefully examines every litter, and where he finds a remarkably fine individual, he sets him or her aside to breed from. This, together with judicious crossing, is the origin of every improved breed; but no stock of hogs, or cattle, or anything else, has yet been brought to such perfection that *all* the individuals produced are good and worthy of being made breeders.

"Why, then, it may be asked, cannot any individual take the native stock of a country, and go on to improve it for himself by judicious selection? So he may; but he will find it much cheaper to purchase a hog, which, by the care of others, has already been advanced to a certain state, to begin his crossing with, than to wait for the advancement to that point of his unimproved stock. No stock, in my opinion, affords finer individuals for this purpose than the Berkshire. But I can pick out many individuals from this or any other stock, *totally unsuited for the purpose of improving any breed*. What is the Berkshire valuable for? Simply because it contains a greater number of individuals than usual of that peculiarity of anatomy valued by the judicious raiser of hogs. But suppose an individual, as there must always be thousands, does not possess that peculiar anatomy, does it avail him, or you, who are his owner, that his mother, or brother, or third cousin does? It is true, that if two individuals possess equal points themselves, he will be preferred whose kindred or *blood*, is most celebrated; and this, because animals not only breed after themselves, but sometimes, also, after their progenitors. But always give preference to propinquity of good points; that is, prefer to have them in the immediate to the remote progenitor. Yet, regardless of this simple truth, we daily see our people sending their money from home, purchasing *anything*, no matter how indifferent in form, provided it may have been the offspring of *a Berkshire sow*. Now I would rather pay fifty dollars for a good selection, than ten for a pair taken at haphazard." Sus.

To the Editor of the Farmers' Cabinet.

The Beet Culture.

Sir,—Your correspondent B., of Chester co., in the last No. of the Cabinet, appears in a bad fix with his Sugar Beets. I strongly suspect that his ill-success has arisen mainly from the circumstance of having lost the fortnight, of which he makes mention, at the commencement of the season, and before the cultivation of the unfortunate crop was entered upon—a very common case, and I have scarcely ever known a man under such circumstances able to *catch up* until Christmas—that is, at the end of the year; nay, I have known many who have been compelled to throw out a portion of their tillage-land for a season to be able to correct the evil—one in particular, who was under the necessity of throwing twenty acres of fallow over to the next year, after having worked it the greater part of the summer for wheat, consoling himself with the hope that he should find a double crop on a two-years' fallow; but after expending a double portion of labour in the next year's ploughing and working, occasioned by a tenfold crop of weeds which had been suffered to mature their seeds on the first year's fallow, where they had the whole soil to themselves, he found himself wofully disappointed.

But surely, it could not require the whole strength of the farm for a fortnight to give a hoeing to two acres of beets, at the commencement of harvest! Why, every weed might have been removed by the thumb and finger in less time than that: no wonder that the manager got sun-struck—the only wonder is, that all had not in that time been melted down into soap and candles! I am prepared to admit that the cultivation of the

beet is troublesome and laborious, but if the crop will pay for it, that is all that ought to be required; it is a fallow crop, and when well-managed, will be found of superlative importance on a stock-farm, besides lengthening the chain a link in a rotation of crops, by introducing one that is unexhausting and cleansing; and that is all that an active and intelligent farmer should expect; but he must be *both*, to insure the success of such cultivation. Yet, after this, "*to have no crop*," is bad indeed, and the cause ought to be investigated: is it that the soil is unproductive, or was the seed defective? I suspect the latter, for very much of that which was disposed of the last season was extremely light and poor, although generally sold as imported — the truth of which I strongly suspected at the time. Or, was it for the want of deeper ploughing to break up the *hard-pan*—an evil which is seldom suspected, because out of sight, but which is the ruin of thousands of acres of crops, subjecting them to starvation in a season of drought, and mildew and disease in a time of great moisture, preventing the superabundance from passing away through the subsoil, when it remains to chill and putrefy the lateral roots of the plants; and then come diseases of all kinds, bugs, lice, flies, &c.; and to this *hidden cause* is no doubt often to be attributed, the rising of the crops in a time of frost—an evil of incalculable magnitude.

But the greatest of all defects in the system of agriculture practised amongst us is, the neglect of cultivation at the fall of the year, and preparation during the winter;—for we thus throw too much of our labour into the spring months, at which time a fortnight lost can never be regained, for every fortnight has its duties which must be performed and can not be neglected; and on stiff and cold soils, and in such seasons as the past, the evil is increased tenfold by neglecting fall-ploughing. All land designed for corn, oats, and green and root crops, should be ploughed deep during the autumn or early winter, being first spread with long dung, where that is intended to be given, and can be obtained: the oats to be sown in the spring —as early as February if the season will admit—without a second ploughing, harrowing them well into the frost-shaken surface of the land, which forms an admirable seed-bed, by no means so liable to be overrun with weeds as fresh-turned land at that season of the year: and thus a fortnight might be gained, to be devoted to the cleaning of the root-crops in the spring. But this system I confess I do not expect to see practised amongst us for many a long year to come; our necessities do not require such a forestalling of labour, and we can procure the means of living easily without it: it is not to be expected from those who can support a family of eleven persons on the third-part of a farm valued at $4,000 only, according to Professor Colman's interesting account detailed in the same No. of the Cabinet: so I suppose we shall *grumble and go on.*

TYRO.

For the Farmers' Cabinet.

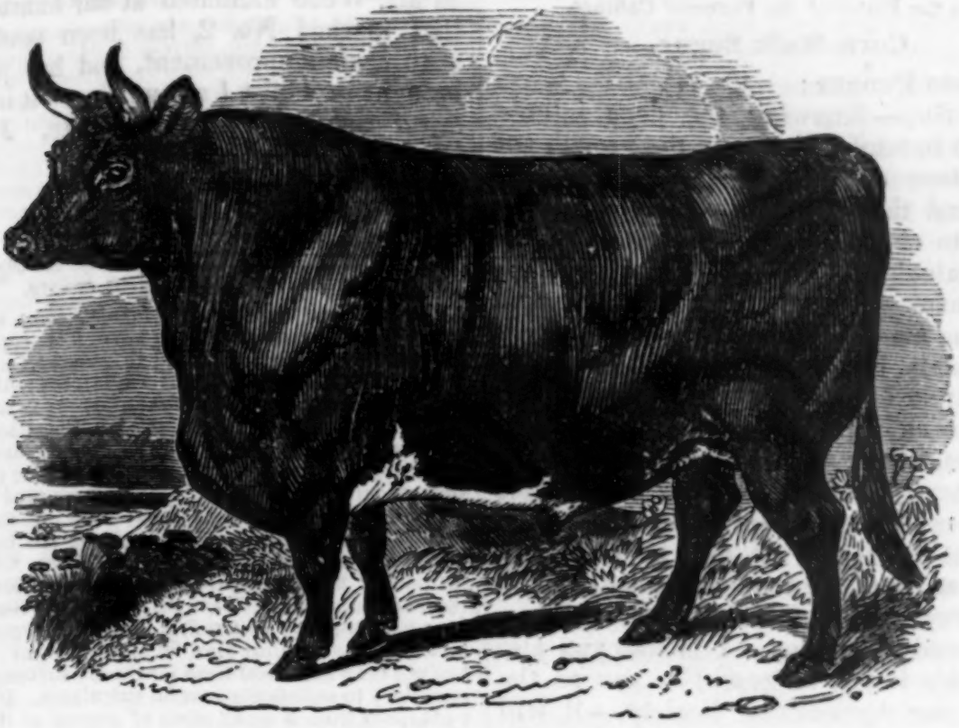
Cheap Roofs.

THE simple mode of roofing out-houses by nailing thin boards on light rafters, may be introduced to very great advantage, particularly in the country. It is only to subject the boards before using to the action of fire, by way of thoroughly seasoning them; nail them on immediately, and cover them with sheathing-paper and a dressing of tar; and a covering, almost for a life-time, may safely be calculated upon.

The rafters, 3 inches deep, 1½ thick; the boards half-an-inch thick, straightened on the edges and closely nailed. The following composition for covering such a roof was employed at Wickham twenty years ago, and is at the present time as good as when first laid. The roof is nearly flat, having a run of one inch only to the foot, the boards being securely nailed and covered with a course of sheathing-paper, such as is used under the copper-sheathing of ships, made fast by small flat-headed nails. To 8 gallons of common tar, add 2 gallons of Roman cement, 5 lbs. of resin and 3 lbs. of tallow; boil and well-stir the ingredients so as thoroughly to incorporate them, and lay on to the roof while hot, with a brush, spreading it very evenly; then sprinkle it while hot with sharp, sifted sand, and when cold, tar and sand as before, after which a single coat of tar once in five or six years will preserve the roof for an age.

To the above may be added, an incombustible, impenetrable wash, prepared according to the following directions. Slake stone-lime with hot water in a tub, covering it to keep in the steam; pass six quarts of it through a sieve, it being in the state of fine dry powder, and add to it one quart of fine salt and two gallons of water, boiling and skimming it. To every five gallons of this boiled mixture, add one pound of alum, half-a-pound of copperas, and by slow degrees half-a-pound of potash and four quarts of fine sharp sand. The mixture will now admit of any colouring-matter that might be preferred, and is to be applied with a brush. It looks better than paint, and is as durable as stone; it will stop leaks in a roof, prevent the moss from growing and injuring the wood, rendering it incombustible; and when laid upon brick-work, causing it to become impenetrable to rain or moisture.

G. D.



THE KINTORE OX,

A cross between the Aberdeen and Improved Short-Horn.

In the 5th vol. of the Cabinet, p. 249, a portrait of this wonderful animal is given in his last stage of fatness—he appears at the head of the present article when about half fat, and in his prime of beauty and comeliness. In this stage of his life, he was sent from Kirk Hall, Scotland, to London, by steam-boat, and consigned to Mr. Harvey Combe, by whom he was fed another year at his estate at Cobham, Surrey, on ruta-bagas, hay, and six pounds of oil-cake per day during the winter, and cut grass and oatmeal in the spring and summer, and at the end of that time he exhibited an enormous mass of fat, but of beautiful symmetry, for which, and the equable manner in which he had laid it on, and his almost perfect levelness from shoulder to tail, he was universally admired: he was then supposed to weigh 2500 lbs., being rising six years old.

When it is known that the Aberdeenshire breed of cattle are very small, often weighing not more than 350 lbs. at four years old, the importance of a single cross with the Short-Horns will easily be understood; and with an increase of size, there is also the improvement of the beef, the Aberdeen affording quality, the Short-Horn, quantity; both uniting to form the remarkable individual here faithfully pourtrayed. But since the introduction of the turnip-husbandry into this part of Scotland, even the native breeds have been much improved in size, and are become double their original weight by judicious selections from amongst themselves, without losing the propensity to fatten, and without *growing above their keep*—a matter of the greatest moment, for cattle should never be raised of a larger size than will fatten on their native pastures: the alterations and improvements in agriculture, and the introduction of the turnip-husbandry have contributed to this, as well as to the generally increased quantity of milk, many of the dairies now yielding double the number of gallons that they formerly did; while in the fertile districts, the original breed of cattle of four or five hundred weight, have been frequently made to feed from fifteen to sixteen hundred pounds, without any cross of the stock. The colour of this breed of cattle is usually black, but sometimes very dark brindled; they are now heavier in the carcass, and give a larger quantity of milk than the West Highlanders, but they do not come so soon to maturity, nor is their flesh quite so beautifully marbled; yet, at a proper age they fatten as readily as others, not only on good pasture, but on that which is somewhat inferior; while some of the first graziers in Scotland have preferred them as fatteners to all others of the Scotch breeds. Besides these, there is another breed of cattle in Aberdeenshire; they are polled, or muleys, somewhat of a larger size, although not so handsome, neither is their meat so much valued, at the market: these also have been much improved by judicious selections.

To the Editor of the Farmers' Cabinet.

Corn-Stalk Sugar.

Mr. James Pedder:

Dear Sir,—Knowing the deep interest you have heretofore taken in the growth and manufacture of beet-sugar in the United States, and the pains you were at whilst in Europe to obtain all the information on the subject calculated to instruct and benefit our countrymen,—and although from different causes the manufacture of beet-sugar has not succeeded in the United States, nor has it been near so extensively undertaken or persevered in as in France,—yet your exertions and writings have set the people to thinking; and to them, perhaps, is mainly attributable this successful experiment of my young and intelligent neighbour Webb, in producing from the stalks of the common Indian-corn of our country, the samples of sugar and molasses I send you to-day. I inclose you also Mr. Webb's letter, addressed to me as the organ of our Agricultural Society—it will explain to you his views and modus operandi. Suffice it to say, his operations so far have awakened the liveliest interest in the subject, and if only one-half of his hopes and calculations be realized—when working on a larger scale—and *sugar and molasses can be manufactured* upon every farm, adequate to its wants, out of a material most largely cultivated upon it, and that too, if not at much profit, not at great loss—yielding a product of prime necessity and universal consumption, which is now principally imported from abroad and produced in but a limited portion of our Southern States from the sugar-cane—is not the whole subject full of interest and worthy the consideration and trial of "all whom it may concern?" If future experience shall prove to the farmers of the Eastern, Middle and Southern States, that it will be more profitable to them to sell their corn at the market price, rather than convert the stalks into sugar and molasses, may it not be otherwise with the great corn producers of the mighty West, where 12½ and 20 cts. per bushel can only be realized, and where maple sugar and molasses can alone be procured, and that perchance at a higher rate and more trouble? Without being too sanguine, or led away by first experiments, let us give to the whole subject a fair trial and the deliberate consideration it merits.

Your views and judgment on Mr. Webb's success, so far, and the probable results of it in future, would be exceedingly interesting to many of the subscribers of the Cabinet—to none more so, dear Sir, than myself.

Respectfully, &c., Yours, J. W. Thomson.

P. S. Papers marked No. 1, of sugar, with more molasses in them, contain such sugar, as Mr. Webb exhibited at our exhibition;—that marked No. 2, has been made since, with some improvement, and has just been brought in whilst I am writing—it is a much fairer sample. Yours, in haste, J. W. T.

Wilmington, September 23d, 1841.

[LETTER.]

To Dr. J. W. Thomson, *President of the Agricultural Society of New Castle County.*

Having been requested to furnish some account of the process for manufacturing sugar from corn, I cheerfully comply in giving all the information on the subject so far as I am at present acquainted with it. The introduction of every new manufacture must necessarily be a work of time; errors and difficulties continually obstruct our course, even where we have all the advantages of experience to direct it. The making of sugar from beets in the large way commenced in France about 30 years ago; yet not more than one-third of this period has elapsed since the business has become important from its extent and profit. These remarks are introduced as some apology for the imperfect state of the communication I have now to offer. Scarcely one year has passed since the first idea was suggested in relation to this peculiar plan for making sugar; and there has not been sufficient time for those exact experiments necessary to satisfy the careful calculator. In one case I obtained from a small piece of ground at the rate of 100 pounds of sugar per acre, but other experiments made since, have conclusively shown, that had a different mode of planting been adopted, the product would have been increased tenfold. The manner of raising the corn and making the sugar is as follows:

The corn is planted in rows 2½ feet apart, and the stalks are left to stand in the row 3 inches one from another; it is then cultivated in the usual manner. Sometime in August, or as soon as the stalk shows a disposition to form grain, the ears must be taken off; this operation must be carefully attended to, as upon it entirely depends success. After this there is nothing more to do until the crop is ready to be taken up, which will generally happen in September; the stalks are then cut up at the root, stripped of their leaves, and taken to the mill, where the juice is pressed out between iron rollers, in the same way usually employed with the sugar cane. Lime water about the consistency of thin cream is then mixed with the juice, one spoonful to the gallon; it is left to settle one hour, and then poured into boilers, which are covered until the liquid approaches nearly to the boiling point, when the scum must be taken off. It is then boiled down as rapidly as possible, taking off the scum as it rises. As the juice approaches the state of syrup, it is necessary to slacken the fire to avoid burning. The boiling is generally completed when six quarts are reduced to one; it is then poured into coolers or moulds and set aside to chrystallize. When this process is gone through, the sugar is to be separated from the molasses; and the whole operation is finished. The process here detailed gives the quality of sugar you see in the samples. If required, it can be afterwards refined as other sugar. The use of animal charcoal and the employment of steam in the process of evaporation, as is common in the manufacture of beet sugar, would, I am confident, produce white sugar at one operation.

From what is known on the subject, I fully believe that an acre of good ground treated as above described, will yield at least 1000 pounds of sugar—probably more. The value of the fodder taken from the stalks, and of the stalks themselves after passing through the mill, will be more than an equivalent for the whole expense of cultivation and keeping the ground up. The fodder produced in this way is much superior to that usually made, from its containing a greater quantity of saccharine matter. And the whole business of making sugar from corn contrasts so favourably with the manufacture from beets, that I cannot but think it will obtain the preference wherever the climate will bring the former plant to perfection. Some of the differences may be enumerated as follows: 1st. the corn is clean and agreeable to work with, while the beet is not. 2d. the machinery for extracting the juice from beets is not only more costly, but is more liable to get out of repair.

3d. the beet juice contains a much greater proportion of foreign and injurious matter, decomposition commences almost immediately after it is pressed out, and if allowed to go on to any extent will entirely defeat the making of sugar. 4th. the proportion of saccharine matter contained in equal quantities of corn and beet juice is as 3 to 1 in favour of the former, therefore the same difference will be found in the amount of fuel necessary in evaporation. 5th. beet sugar when obtained is inferior in quality and loses a larger per cent. in refining. 6th. corn is a native of our country, perfectly suited to the climate, a true American, and is in fact the finest plant in the world; the author of "Arator" (Col. Taylor of Virginia) used to call it our "meal, meat, and manure." We now add *sugar* to the list of its valuable productions. Respectfully yours.

WM. WEBB.

I am free to confess that I have never seen beet sugar prepared by first process at all equal to the samples of corn-stalk sugar forwarded by Dr. Thomson, while the molasses, which, by the bye, contains more than 50 per cent. of sugar, is far superior to that made from the beet by *any* process—indeed I have never known beet-molasses pure enough for any purpose but distillation or the feeding of stock, for which last, however, it is of very great importance. Mr. Webb has the merit of deciding the question, "Can good sugar be made from the corn-stalk?" Whether it can be made to *profit*, is a second consideration, which he will have it in his power to determine. The simple mode of operation which he details would do but little in the fabrication of sugar from the beet; for while there is not the least difficulty in the process by well-appointed machinery, it is readily admitted that a considerable portion of art is requisite in the numerous stages of the fabrication of beet-sugar, to free it from the impurities found in the root. With improved apparatus and experience in the present art of refining, there is no question that loaf-sugar might be made by first process from the corn-stalk.

Mr. Webb's modest and unreserved account of the mode of manufacture will be read with very great interest, for if the corn-grower can be directed to a new channel for the consumption of half his crop in the fabrication of an article of such *legitimate usefulness*, the gain to the community will be of incalculable importance. The pages of the Cabinet will be open for the register of farther information on the interesting subject; would Mr. Webb employ them for the purpose, and oblige its numerous readers. J. PEDDER.

For the Farmers' Cabinet.

Horticultural Exhibition.

MR. EDITOR,—The Horticultural Society of Philadelphia held their thirteenth annual Exhibition at the Masonic Hall, on the 22d, 23d, and 24th of the present month. Nothing could exceed the splendour of the collection, or the elegance of arrangement,—it is but faint praise to say the present exhibition stands unrivalled. The profusion of fruits, flowers and vegetables, was immense; the managers exerted every method of display, and succeeded in their endeavours to render a feast truly magnificent and equal in every respect to the high expectations of the community; and they were richly rewarded by the approbation and admiration expressed by the many thousands who crowded the rooms during the three days they were opened for exhibition. Many of the vegetables were truly gigantic—the Valparaiso squash of 101 lbs., with egg plants weighing 10 lbs. each; sugar beets of 14 lbs., and others of 8 lbs. each, of most perfect growth, from seed sown on the 19th June, after a crop of peas, and harvested ripe.

It was exceedingly gratifying to find the suggestion of a correspondent of the Cabinet —vol. 4, page 343, "On the naming of Flowers"—in a measure carried out at this exhibition; for many of the very beautiful dahlias bore the names of some of the most elegant females of polished society: and the cultivators of this remarkably diversified and brilliant class of plants need not despair of finding a sufficient choice of names and *attributes* amongst the ladies of Philadelphia and its environs, to suit the most fastidious taste—the superb, the gorgeous, the magnificent, the splendid, the sparkling, the elegant, the chaste, the modest, the lovely, the unassuming, the retiring—all, too, as perfect in form, in native grace and dignity, and correctness of display, as could be found in that highly-prized and much-admired collection of flowers, which took the premium at the first day's exhibition! And it is to be hoped that at the next exhibition we shall meet with all those whom we honour, admire and love, in the semblance of that finished work of Nature's own—the beautiful DAHLIA.

A CASUAL VISITOR.

Sept. 28, 1841.

Thoughts.

They come, when the sunlight is bright on the mountain;
They come, when the moonshine is white on the fountain;
At morn and at even, by minutes and hours,—
But not as they once were, of birds and of flowers.

They come, when some token of past days will rise,
As a link to the present,—and then they bring sighs;
They come, when some dreaming through hopes and through fears,
Rushes on to the future,—and then they bring tears.

They come, when the sea-mist o'er ocean is rife,
And they tell of the shadow that hangs over life;
They come, when the storm in thunder and gloom,
Spreads aloud, and they speak of the earth and the tomb.

They come, when the ripple is low on the lake,
And the plover is nestling by fountain or brake;
And the twilight looks out with a star on its breast,
And they whisper, that all but themselves are at rest.

They come, when the low breeze is fanning the leaves;
They come, when the flow'r-cup the dew-drop receives;
By night's noontide silence, by day's noontide hum,
At all times, oh! deeply and darkly they come.

THE *just man* does all that his fellow-creatures can reasonably claim at his hands—the *good man* does more; he serves them beyond the limits of any law, in cases in which they could demand nothing of him, which is *kindness*.

Letter from Solon Robinson.

To the Editor of the Farmers' Cabinet.

After spending a week in and about your city, I cannot bear to leave it without a parting word to the many warm-hearted friends that I have found here. I am one that holds that self-esteem is a virtue, for it is that which makes us all proud of doing good. It is that which makes me proud of the reception that I have met with among a very large number of the agriculturists of this vicinity. But it is not a kind of self-esteem that makes me proud of the honour conferred upon me personally, for I am a stranger, personally unknown, even by character, except by my writings; but on account of the cause that I advocate have I been most flatteringly received wherever I have been. Oh, sir, the spirit of improvement is abroad. That "band of brotherhood" that I long to see cementing us all together, is forming. That joyful day is coming, when all the agriculturists of the land will feel as though they belonged to one family, and that their occupation was, and of right ought to be, the most honoured of all others.

On Tuesday last, I paid a visit to several of the farms upon the far-famed Brandywine hills of Westchester. If, Nebuchadnezzar-like, I am ever "turned out to grass," may it be upon such fat pastures as I saw there. At the farm of Samuel Worth, I found a most beautiful drove of Ohio oxen — fine, large, red, and upon such grass I need not say, very fat. This I find is a common practice, to drive lean oxen from Ohio, to take on a coat of Pennsylvania fat; and from this source comes the fine juicy beef with which your fine market houses abound. Many of these same cattle are driven into Ohio while quite young, from still further West, so that the places of their nativity and death are often a thousand or more miles apart. And as the great West improves, her almost boundless pastures will furnish an everlasting supply for the Eastern markets.

At the farm of Joseph Cope, I found an excellent specimen of South Down sheep, and a choice Durham bull, selected by himself in England. It would do some of our Western farmers (slovens, rather,) good to visit this farm, to see a place for every thing, and every thing in its place, in doors and out. For be it known that there is one within the house well worthy of the name of "Farmer's wife."

At the farm of Paschall Morris, we—I forgot to say that in this excursion, I was accompanied by Caleb N. Bennet, of Albany, whom I met in Philadelphia—we saw much to admire. A farm under a high state of improvement—a beautiful lot of short-horns—Berkshire hogs, and Bakewell sheep—a very neat dairy house, with a churn driven by horse-power. Mr. Morris makes butter for the dignitaries of Washington, and here, let me assure them, that they may be assured of the perfect neatness of the manufactory. Mr. Morris is a young Philadelphian of wealth and intelligence, who has devoted himself to a noble pursuit; and his lovely wife is a sweet flower, that adorns her pleasant home, and makes the visiters at her hospitable mansion feel "at home." I have neglected to mention that we arrived in the evening at Westchester, the delightfully situated seat of justice of Chester county, and were soon visited by Dr. Darlington, a well-known agricultural writer, with a cordial invitation to breakfast, which we accepted; after which the Doctor drove us over to Mr. Morris', but was prevented by official engagements from spending the day with us. He however, transferred us to good hands, and a good carriage, in which Mr. Morris spent the day, until late in the evening. And his acts of kindness, similar to which are now everywhere to be seen among the "strong bond of brotherhood" which is forming among the friends of agriculture, did not end with that day, for at an early hour the next morning, his carriage was at the door to take us down to the agricultural fair, at Wilmington, whither we were also accompanied by Joseph Cope.

But the limits of this letter will not permit me to record the high praise that I intend to do hereafter, to Wilmington; not so much on account of the display of stock and implements, as upon the ennobling spirit that seemed to pervade the whole population. The Horticultural exhibition, which is connected with the Agricultural Society, showed the power of "female influence," and the room in the evening, showed a greater amount of female loveliness than is often to be met with upon such occasions.

The excellent dinner of the Society, from which "all intoxicating liquor" was banished, was one of the most pleasant of my life. After dinner, we partook of the "real old Virginia hospitality" of Dr. J. W. Thomson, the President of the society; and in the morning I had to deny myself the great pleasure that I should have enjoyed in spending a few days among the large circle of friends that I found, (although a stranger,) in Delaware. Both at Westchester and Wilmington, the subject of organising the *National Society of Agriculture*, was taken up with enthusiasm, and approving resolutions passed and delegates appointed.

I beg you to assure the numerous friends of agricultural improvement in and about Philadelphia, whom I was prevented from visiting on account of my pressing engagements, that I duly appreciate their good

wishes for the success of the cause I am engaged in; assure them also, that success is on the high road to prosperous completion.

Towards you and your readers, I remain most respectfully your friend — in the language of the lamented and honoured Buel —

"With affectionate regard,"

SOLON ROBINSON.

Philadelphia Sept. 20, 1841.

For the Farmers' Cabinet.

Hygienic Influence of Trees.

MR. EDITOR,—It gives me much pleasure to see the interest that has lately been expressed in the Cabinet, by yourself, and your correspondents, on the subject of the cultivation of trees and ornamental planting around dwellings. That this subject is greatly neglected by a large portion of our agricultural community, may be seen by the most cursory observation; and it is deemed, that any effort the periodicals devoted to the advancement of the farming interest in this country may make, in order to call the attention of agriculturists to this important subject, will certainly be in harmony with their object, and no doubt prove beneficial.

I have long held the opinions expressed by your correspondent, "P." in the August number of the Cabinet, under the caption of "Ornamental Planting;" and since he has so truly expressed the beauty, neatness, and comfortable appearance, which is added to a dwelling by the exercise of a cultivated taste in the arrangement of the trees, vines, and shrubbery which surround it, perhaps a few remarks on the *utility* of such a course would be acceptable to some of your numerous readers. Permit me, therefore, to follow up "P.'s" suggestion, by adding my humble endeavour to circulate information respecting this important and interesting subject.

Many of the blessings which Providence has so bountifully bestowed upon us, contribute not only to our pleasure and gratification —not only to beautify and ornament the great temple of nature, but are, added to this, of striking and indispensable importance in the economy and operation of its laws. And among this number we may class TREES, although I am aware that the opinion is entertained in many parts of our country, that trees and vines, planted immediately around dwellings, render them unhealthy. That this is not the case, may be clearly seen by examining for a moment the functions performed by them.

In the first place, they *purify the atmosphere.*

On the vital importance of atmospheric air, it would be foreign here to dwell; but the least reflection will show, that its presence is almost constantly necessary to our existence, from birth to death. There is no external agent of which we can be deprived, the absence of which would be attended with an equal amount of deleterious and fatal consequences. We may be deprived of light, heat, food, and sleep, for, comparatively, a long period; but the absence of *air*, even for a few minutes, is attended with great distress, and, if continued, death is inevitably produced. But it is of equal importance that this air should be pure.

Air, as *inhaled* by the lungs, consists of nitrogen and oxygen in the proportion of four parts of the former, to one of the latter; but when this air is *exhaled*, it is found to have undergone a material change; a considerable portion of the oxygen having disappeared, its place being supplied with an equal amount of carbonic acid gas, formed by the union of the carbon of the blood, with the oxygen of the atmosphere. This gas is exceedingly pernicious to animal existence, destroying life even when present in, comparatively, a very small proportion.

Atmospheric air contains *in maximo* $\frac{66}{100000}$ carbonic acid gas, and $\frac{21000}{100000}$ oxygen. A healthy man is computed to consume in one year, 166,075 cubic feet of oxygen (or 45,000 cubic inches in one day,) a thousand million men, which, according to some authors, is the estimated population of this globe, must consequently consume 166 billion feet in one year; this is equal to $\frac{1}{1000}$ of the quantity which is contained in the air in the form of carbonic acid. The carbonic acid in the atmosphere, would thus be doubled in 1000 years, and man alone would exhaust all the oxygen and convert it into carbonic acid in 303 times that period. We hence see, that man, independent of the quantity consumed in the respiration of animals and by the process of combustion, which of course is far greater, would long since have rendered the air incapable of supporting existence; and thus life, producing the seeds of death, the whole animal kingdom would, ere this, have become its own destroyer.

This evil is obviated by a wise and beautiful provision of nature, appropriating this gas, which is so fatal to animal life, as the food and subsistence of vegetation.

Liebig, in his recent valuable work, has proved by experiments made with the greatest possible accuracy, that the woody tissue of plants is derived almost exclusively from the atmosphere. According to his estimate, 40,000 square feet of land was found to yield 2650 lbs. of fir wood, of which, not more than 91 lbs. taken in the most favourable light, could have been derived from any other source.

But plants not only render the air respira-

ble by consuming all that is deleterious in its composition, but they are also an inexhaustible source of pure oxygen — a gas that is of the utmost importance in the vital process of respiration.

The nutriment of trees is conveyed up the trunk to the leaves, where it is decomposed by the agency of light, the carbon being incorporated with the tree, so as to form its solid matter, while the oxygen is exhaled or thrown off into the atmosphere. We thus see one of the ways by which vegetation contributes to the healthy state of a country, in maintaining that important medium in the atmosphere on which so much depends, and without which, even the most densely inhabited country would soon become desolate.

The cultivation of trees contributes in another way to the health of a situation around which they are planted—they act as a protection against that fruitful and mysterious source of disease, *miasmata.* This peculiar substance, arising from the decomposition of vegetable and animal matter, sometimes spreads itself over whole districts and even continents, bearing with it epidemics and fevers of a most serious and alarming character. The Asiatic cholera of 1832, furnishes us with a striking instance of this peculiar property of miasmata. Dr. Reynall Coates, in his treatise entitled "Popular Medicine," a work of high and deserving celebrity, makes the following remarks on this subject, in the chapter on Hygiene, or the Art of Preserving Health.

"It appears probable, (to speak in the most cautious manner,) that vegetation — which, in its decay, produces by far the greatest amount of miasm — when vigorous, subsists upon and destroys it. This result is no doubt in a great degree owing to the action of the roots in absorbing the elements of decayed plants beneath the soil, but it is at least equally certain that the stems and leaves of living vegetables inhale the same effluvia to an incalculable extent. Our American forests are almost universally remarkable for their healthiness in their primitive state. The most noxious portion of the gases eliminated from the dead leaves is immediately absorbed by their living successors. The tree, the vine, the shrub—even the grave festoons of moss, and the humbler linch and mushrooms, all contribute to preserve the fitness of these gloomy wilds for the residence of savage or adventurous man."

The probability here spoken of, has recently been satisfactorily established by Liebig, and he thus beautifully concludes the chapter which he has devoted to this subject. "Carbonic acid, water, and ammonia, contain the elements necessary for the support of animals and vegetables. The same substances are the ultimate products of decay and putrefaction. All the innumerable products of vitality, resume, after death, the original form from which they sprang. And thus death—the complete dissolution of an existing generation—becomes the source of life for a new one."

Dr. Coates further remarks—"In England every little cottage is surrounded with verdure. The honey-suckle, the eglantine, and the clematis entwine their branches around the door-way, and form festoons above every window, while the ivy covers the blank wall with the best of all protections against the rays of a basking sun. How barren and cheerless in comparison is the aspect of those unmeaning piles of logs, boards or bricks, so often, in our land miscalled a home! But taste and beauty are not the chief recommendation of this species of ornament. Waiving the inestimable moral advantage of cheerfulness, and that expansion of heart, which a fondness for the gems of Flora invariably bestows, the horticulture of cottages is a subject of great hygienic importance. A dense mass of foliage covering the walls of a building in summer, reduces the excessive heat within doors, and equalizes the temperature of the day and the night. In this manner it lessens the risks of disease, and renders an attack less dangerous."

I have thus endeavoured, briefly to present your readers with other incentives, added to those already mentioned in past numbers of the Cabinet, to devote more attention to this essential, but too much neglected branch of *improvement.* Certainly if the enrichment of the soil, improvement of the stock and seeds of a farm, are matters of so much importance, the comfort, happiness, and health, of those who constitute the "family circle," are not of less. Home should be the centre —the grand focal point of all the farmer's operations, for it is as much a duty to *enjoy* life as it is to *employ* it. Cincinnatus.

September 22, 1841.

"His were not those lazy, luxurious habits of eating dinners when he should be eating his supper. He was not much of a physician, but he would undertake to say that if they would follow the practice adopted by himself, they would have little to fear from illness. He rose seldom later than five o'clock; he then took exercise, principally on horseback, for an hour or an hour and a half; he then made his toilette, took his breakfast, read the newspapers, and was ready to go to work. In connection with this, he always retired to bed at 10 o'clock; seldom later. If his friends would pursue this course, he would not only insure their health, but would engage to pay their physician's bill."—*Hon. Henry Clay.*

To the Editor of the Farmers' Cabinet.

Root Culture.

Sir,—In a late tour which I made during a season of leisure, according to the recommendation of the Cabinet, I have gained experience that will repay me the cost of the journey ten times told. Having seen and heard so much of the barren sands of Jersey, I felt determined to see a little and judge for myself: accordingly, one fine morning, I accompanied a friend from Philadelphia on a gunning expedition up Cooper's creek; and while he was plunging half-leg deep in mud, I had sufficient employment of a very different character to examine the modes practised in these sands, from whence so much *truck* is taken to the Philadelphia market, just across the river. Much of the land in the immediate vicinity is the property of the Cooper family, who, I was given to understand, are at length determined to sell a portion for building purposes—a determination which, had it been *indulged in* forty years ago, would have created a town at what is called Cooper's Point, of many hundred houses by this time; but my business is now with the *country*, and not with the town. I was going to say, within a short distance from the shore and in the midst of the sand, I saw better management than I ever before witnessed! Why they must realize, by a single year's crops, more than the value of the land, for I found a man who has already taken three full crops from the same field, sold them, and put the money in his pocket. Near by, are the farms of Mr. B. Cooper and his son, over which I confess I cast an envious eye, regretting that I had not an introduction to them, that I might learn a mode by which they secure to themselves and their out-door family that *comfort* which is so visible in all with which they have to do, their horses, cattle, hogs, and even poultry, being all so well bred and well fed.

But the chief end I have in view is, to point out to your correspondent B, whose ill success in the culture of the beet has furnished an interesting and most amusing article for the last Cabinet, a mode, by which he will see how they do the thing elsewhere, for here I saw a piece of remarkably fine sugar beets, after a full crop of garden peas that had been harvested for seed; forming a second crop of great luxuriance, which will obtain a season sufficiently long to bring them to perfect maturity; a portion of the same field being potatoes, following peas also, the two crops having been worked together in the regular way by means of the cultivator, without trouble or much extra labour: these second crops are expected to turn out equal to almost any in the county, where they have formed the only crops for the season. And here, too, I saw the proposal—to sow the common turnip in the corn at its last cleaning—carried out to perfection: the turnips are now nearly fit for the market, and after the removal of the corn, which will be done by means of the machine described at page 73 of the Cabinet, vol. 5, they will have space to complete their growth and become a most valuable auxiliary in the winter-feeding department of a well-regulated establishment. If our friend B would devote some of his leisure to travel, I think he would neutralize a portion of that acidity which he seems to have imbibed by staying at home to nurse his beet crop; and when the cultivation of that root becomes better understood, I have no doubt much of the contrariety of opinion that is now entertained respecting its value as food for cattle will be reconciled. In hot and light soils, the crop ought not to be sown before June, which gives ample time for the growth and removal of some early crop; or the seed may be planted on a clover-lay after the first cut of hay is carried, with the expectation of perfect success: on cooler and heavier soils, the crop may be sown earlier, but then the plan adopted by Mr. Longstreth ought to be practised, namely, to sow turnips on the land at the last cleaning. Let it always be remembered, *and never let it be forgotten*, that if the sugar-beet gets a check in its growth and starts afresh, the saccharine principle is as effectually destroyed as is that of the sugar-cane by a single frost,—nothing can then be obtained from it but *potash*, which at once accounts for the diuretic effect on the cows belonging to the friend of B. We all know the effect of a second growth of the potato crop.

J. Johnstone.

Reading.

Note.—We have long been urging upon our agricultural friends the substitution of the sugar-beet as a second crop, and have at length the pleasure to say we have witnessed the result of the practice in heavy crops of the greatest luxuriance. At the Horticultural Exhibition at Philadelphia, there were roots of sugar-beet of the most perfect growth, weighing 8 lbs. each, measuring 18 inches long, and 18 in circumference, from seed sown on the 19th June, on land that had borne a crop of peas that had been harvested ripe; and as every one knows that quick growth is the *all in all* in root cultivation, there is no question but these roots will retain their juiciness and vigour to a late period in the spring, and make good butter to the end. These fine roots were exhibited by Mr. Benjamin Jones, of New Jersey, who deserves a medal "for his crop of sugar-beets after peas harvested."—Ed.

It is in human nature to be indignant at certain vices and crimes, but alas for us! we feel a virtue in our indignation and boast of it as a *merit!*

For the Farmers' Cabinet.

Bee Moth.

In the first No. of the Cabinet, vol. 6, is an article headed The Bee Moth, which is, I think, calculated to deceive the bee-keeper. I am no enemy to *science*, but I wish to see it based on fair reasoning—then I am ready to become a convert to the theory of any man.

The ravages of the bee moth are notorious in all sections of the country where they have made their appearance, and are calculated to excite the apprehensions of bee-keepers for the safety of their hives, and to urge them to adopt preventive measures against their depredations—but thus far I believe no effectual remedy has been discovered. The theory laid down by your correspondent is, that "the bee moth has no desire to deposit its eggs in a hive, until it knows by instinct that the swarm is unhealthy, and that the labours of its progeny will soon be required to act the part of the turkey-buzzard:" and the only remedy he proposes is, to transfer the swarm to a new box so soon as the moth is observed flitting around the entrance of any particular hive—but it is reasonable to ask, will this simple transfer restore the bees to health? Besides, all experience in the transferring of bees to new hives, goes to establish the important fact, that when swarms are transferred to new hives, it must be done in the early part of the season, when there is time for the bees to collect sufficient honey for their maintenance, or they will die of starvation, unless they are provided with food by their keepers; and no prudent man will transfer his bees to new hives at any other season, after he becomes acquainted with this fact.

But, is it true, that the moth will deposit its eggs no where but *in* the hive? I could produce many witnesses to prove that it frequently lays its eggs on the outside of the hive, particularly if there be crevices or cracks about it, as well as on the bottom of the hive, and in the corners formed by the projection of the top board. The straw-hive also furnishes more proof on this point—it was the custom formerly to place a cap of straw over the hives, the ends extending down the side of the hive nearly to its lower edge, but it was found that the moth crept into the ends of the straw covering to deposit its eggs, and the worms became so numerous that it was found necessary to dispense with the straw covering on this account. Now, in my opinion, it is the nature of the bee moth, like other insects, to deposit its eggs in the vicinity of the food adapted to the wants of its young—the silk worm on the leaves of the mulberry, the green fly on the roots and branches of different kinds of grain, while the food of the butterfly is as various as its different species; its habits, however, being peculiar in one respect—it always avoids putrid and fetid matter as food; and the bee moth is of this species.

In view of this rational and common-sense aspect of the case, the writer of the present article conceives that he has succeeded in fabricating a bee-box that will obviate at once all these difficulties; meet most effectually all that is required to preserve our swarms in perfect health and vigour, and, by the most simple of all means—the peculiar construction of the bottom of the hive—afford a remedy against the destructive ravages of the bee moth—a desideratum, he conceives, hitherto unaccomplished.

Application has been made for a patent for the invention, and due notice will be given where the hives may be obtained; it being intended to deposit one at the office of the Farmers' Cabinet, for inspection. P.

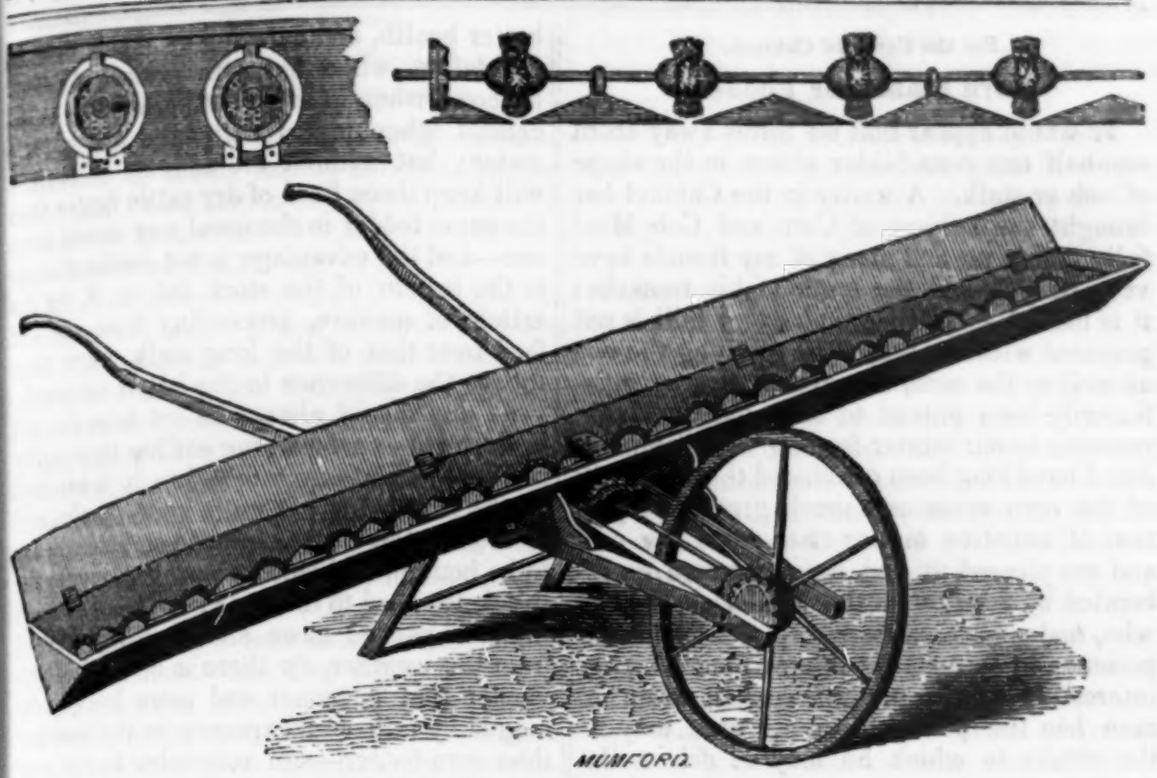
Philadelphia, Sept. 15, 1841.

Homage to Virtue.

When Cambray, the metropolis of the See, and the place of residence of Archbishop Fenelon, was the seat of the war which was carried on by the French and English and their allies at the beginning of the last century, the French army naturally vied one with the other in showing respect to this amiable pastor; but veneration of his name and character was not confined to his countrymen, for he was no less respected by the enemy. The Duke of Marlborough, Prince Eugene and the Duke of Ormond anticipated his safety and his wants by all kinds of civility—they sent detachments to guard his meadows and his grain; they caused the crops to be transported to Cambray, lest they should be seized and carried off by their own foragers; and when any party of the enemy had learned that he was about to take a journey within his Diocese, they sent him word that he had no need of a *French guard*—that they would escort him themselves! Such a commanding power has virtue over all hearts.

Steeping Smutty Wheat.

Arthur Young sowed 14 beds with the same wheat-seed, which was black with smut. The first bed was sown with this wheat without washing, and had 377 smutty kernels. A bed sown with seed washed in clear water, produced 325 smutty kernels; washed in lime-water, 43; in ley of wood-ashes, 31; in arsenic and salt mixture, 28; in lime-water, four hours, 2; in ley, four hours, 3; in arsenic, four hours, 1; in ley, 12 hours, none; in the same ley, 24 hours, none; in lime-water, 24 hours, none.



BENNETT'S SOWING MACHINE.

We have copied from the 4th volume of the Memoirs of the Philadelphia Society for promoting Agriculture, this all-important implement, which ought to be in the hands of every agriculturist in the Union. After many years' experience, we are prepared to say, it is perfect in all its parts, and superior to every other *sowing* machine, for the purpose of distributing the seeds of grass, turnip and clover, with the most minute exactness, in any quantity required, and with a facility and ease quite inconceivable to those who have never witnessed its operations. We copy the following account, with directions for its use, from Dr. Logan's communication addressed to the president of the Society.

"The cultivation of clover is considered the basis of a rotation of crops on which is founded the improved system of agriculture in the United States, but many of our husbandmen are discouraged from adopting its use, on account of the delay and difficulty in sowing an extensive field with light grasses by hand. It is, therefore, with great pleasure I inform the Society, that I have received from a friend, one of Bennett's sowing machines for sowing grass, turnip, or clover-seeds, which promises to be a most valuable addition to our implements of husbandry. The experiments made with it at Stenton, in sowing clover and timothy seed, exceed my most sanguine expectations; a man, pushing the instrument before him in the manner of a wheelbarrow, will sow twenty acres a day, *uninterrupted by wind or weather.*

"*Instructions for using.* When you get into the field, set the regulator and lay the box across the carriage, setting the regulators behind for dropping the seeds; then put the seed into the box, place three sticks in a straight line to guide, and drive straight across the field; then remove the sticks to the proper width, and drive back, and so continue, leaving the headlands until the last. When you want to turn, take the wheel in your hand and lift the machine off the land, and place it in the line you wish to follow in returning; it is light, and there will be no difficulty in performing this operation: once going over the land will be sufficient.

"*Instructions for setting the machine.* When you want to sow mixed seeds, such as rye-grass, trefoil, clover, or any other mixture of these, let them be well mixed before going to the field; then turn the large hole of the plate opposite the brush in the box: the hole at full size will sow twelve or fourteen gallons to the acre, and half the hole, seven gallons, (there is a difference in the size of grass seeds.) In sowing turnips, one small hole at each brush will sow two pounds of seeds per acre, but of ruta baga not quite so much, as the seed is larger. If you desire to sow but one pound of seed per acre, put one hole to every *other* brush and a blank to the others; and if the seed be good and the season kindly, it will produce a good crop and come in drills, which will need little labour in hoeing. In sowing red clover, five holes will sow eight pounds of seed per acre; of white clover, about eleven pounds per acre, and so in proportion to all other seeds of the same size. The distance you walk in sowing an acre of land when using the box at full length, is 235 rods."

N. B. The plates are made of brass and are easily turned, so as to submit each hole or set of holes to an aperture in the box, through which the seeds are forced by the brush in its rotary motion; no difficulty is encountered in any part of the operation, and the machine may be used many years without the least danger of disorder, except by accident.

For the Farmers' Cabinet.

Corn Stalks for Fodder.

It would appear that we throw away about one-half our corn-fodder either in the shape of cob or stalk. A writer in the Cabinet has brought the subject of Corn and Cob Meal fully before us, and many of my friends have very fully tested the truth of his remarks; it is indeed surprising that every mill is not provided with the means of grinding the cob as well as the corn, now that it has so satisfactorily been proved to be a most valuable resource to our winter feeding establishment. But I have long been convinced that the stalk of the corn contains a much greater proportion of nutritive matter than even the cob, and am pleased to find my conviction corroborated by a writer in the Frederick Herald, who, under his own signature, relates his experience in corn-stalk fodder, which is highly interesting at the present season, when no man has the power to divine what may be the straits to which he may be driven the coming winter.

Mr. Simmons writes, "In consequence of the great drought that prevailed in the section of country in which I lived the last summer, my crop of corn fell short three-fourths of what I anticipated when I planted; and the pastures being exhausted early in the fall, I became concerned, lest I should not be able, with the produce I had, to support my stock through the winter. Having cut up my corn in the field close to the ground, as had been my practice for many years, I took a notion that I could, after husking the corn and leaving the shuck to the stalk, cut the stalk, blade, shuck and all quite short, and make it go farther as stock-food, doing more good, than when fed in the usual manner by throwing it in the cattle-yard to be picked over and trodden into the dung; and having procured a very strong chaff-cutting box and fitted it to go by horse-power, I found that with the labour of two hands and one horse, I could cut from fifty to sixty bushels of horse-food, from half an inch to three quarters long, in one hour, and from seventy-five to ninety bushels for cows, from an inch to an inch and a quarter long, in the same space of time. The failure of my last crop of rye as well as corn, induced me to try this corn-fodder for horse as well as cow food, and I therefore commenced early in November to feed them twice a day, giving each horse about half a bushel at a time, to which I added two quarts of wheat-bran stirred together and made moist with water, frequently adding a little salt; and to this food my light work-horses were confined during the winter, with only the addition of a very scant portion of hay, doing as much work as usual, appearing to be in better health, and carrying as much flesh as heretofore, when fed with grain. As food for cows when in milk, cut corn-fodder is excellent, when mixed with bran and a little water; but without the addition of bran, it will keep three head of dry cattle better than the same fodder in the usual way would keep one—and the advantage is not confined alone to the benefit of the stock fed on it, for the article of manure, proceeding from the cut food over that of the long stalk, more than repays the difference in the labour incurred.

"Corn should always be cut from the hill in the field as soon as the ear has thoroughly matured—or at any rate before it is touched by the frost—and put up in good shocks, and as soon as the ear has become sufficiently dry to be housed, it should be husked, leaving the shuck attached to the stalk: the fodder should then be packed close and properly secured from the weather, for there is no kind of provender that is sooner and more heavily damaged by rain and exposure to the weather than corn-fodder—and remember to cut your corn close to the ground, for that part of the stalk which grows below the ear is worth far more than the part above." S.

For the Farmers' Cabinet.

Salting Horses.

A curious fact is mentioned in Parkes's Treatise on Salt—"A person who kept sixteen farming horses, made the following experiment with seven of them which had been accustomed to take salt with their food.—Lumps of rock-salt were laid in their mangers, and these lumps, previously weighed, were examined weekly, to ascertain what quantity had been consumed, and it was repeatedly found that whenever these horses were fed on old hay and corn, they consumed only from 2½ to 3 oz. per day, but that when they were fed with *new* hay, they took 6 oz. per day." This should convince us of the expediency of permitting our cattle the free use of salt at all times, and it can not be given in so convenient a form as rock-salt, it being much more palatable than the article in a refined state, and by far cheaper. A good lump should always be kept in a box by the side of every animal, without fear that it will ever be taken in excess. E.

Wage an unceasing warfare with the weeds. It is not too much to say, that in many cases the annual profits of a farm are diminished from one-third to one-half, by this crop alone. Cutting John's-wort and applying plaster to invigorate the grasses will destroy this weed, while others must be pulled by hand before ripening their seeds; others, again, require to be plucked up by the roots.

For the Farmers' Cabinet.

Diseases of Horses.—Hilling Corn.—Agricultural Improvements.

The charlatanism practised in the medical treatment of horses readily accounts for the unfortunate termination of most of their diseases. At least such is the conclusion deduced from my limited experience.

The first horse I ever owned contracted an inflammation of the lining membrane of the eye, from exposure in severe winter weather, and the action of the reflected rays of the sun when the ground was covered with snow. Every one who witnessed the progress of the film which rendered his vision hourly more obscure, insisted on the immediate and free application of burnt alum. The remedy was tried, persisted in, and in a fortnight the animal was stone-blind. I reflected afterwards how injudiciously I had acted in yielding to current opinions when they were opposed to the principles of nature. Here was a horse, affected with an acute disease of a sensitive tissue, due in a great measure to a constitutional affection, yet treated as though the part was destitute of vitality, and without any reference to the state of the general system. Under different circumstances the application of burnt alum would doubtless have been very proper — that is, when the condition of the affected part demanded increased action. But the case was just reversed.

I last winter had a horse affected in a manner precisely similar, and received identically the same advice from those around me. I determined, however, to act in accordance with my professional judgment. After proper depletion, therefore, the local inflammation was combated by cold applications (Solution of Sugar of Lead, &c.) and the use of necessary precautions to prevent irritation from excessive light. The active inflammation being subdued, the film, which consists of a secretion of fluid within, and thickening of, the *conjunctiva*, or membrane covering the eye, was easily removed by a solution of lunar caustic, 10 grs. to the ounce of water, applied by means of a camel's-hair pencil. The recovery within a fortnight was complete.

I cannot understand why a rational method of treating all diseases of horses should not be adopted. It especially becomes the duty of the farmer-physician to investigate their diseases, rather than consign them to the "horse doctor" with disgust. The error of prescribing for a name, in entire ignorance of the proximate cause, of the malady, might soon be avoided. I seldom hear of the death of a horse where the cause of it is *professed* to be known, and still more uncommon is it to hear of an examination being made after death to clear up the mystery. But it is the physiologist and anatomist alone who can derive much benefit from opening diseased animals after death.

I may, in this place, record the result of my experience the present year in hilling corn. About one-fourth of my crop was ploughed, in consequence of its being overrun with grass. My neighbours insisted upon the necessity of it to support the stalk, or, as one of my black men expressed it, to "*expert* the corn." From the diversity of soil I am unable to come to any conclusion respecting the difference in vigour of growth between that ploughed, and that cultivated with flukes only; but am satisfied, the quantity was not increased by the former process, which necessarily exacted additional labour. As to hilling the corn affording it any support, I am satisfied of its inefficiency. The corn that was ploughed was more prostrated by winds than the other—a result to be attributed, possibly, to its more exposed situation, for I do not imagine either mode of culture renders it less obnoxious to the effects of high winds.

In conclusion, I cannot refrain from expressing the high gratification we all here begin to feel at the elevated stand agriculture is now assuming. Within the last few years improvements in this county have been constantly progressive, and in an increasing ratio. Despite the malign influences of financial embarrassments and political agitations, superadded to low prices of produce, landed properties have advanced, and are at this time in greater demand, and at higher valuations than at any preceding period in our history, except perhaps for a short period after the war, when speculation and bread-stuffs ran "mountains high." Men of intelligence and wealth now purchase farms to reside upon and improve them, and not for purposes of speculation. The result in a few years in all probability will be to place our lands on a par in nominal value with those in Lancaster and Chester counties. And why not? The soil is as kind, the country as healthy, and more convenient to markets. The impetus this movement has received from the agricultural press, especially the Albany Cultivator, and Farmers' Cabinet, has been most happy. The controlling influence of these publications cannot be fully appreciated.

J. A. Lockwood.

Wilmington, Del., October, 1841.

The science of agriculture is by no means at its height; in the almost miraculous advance of chemistry, new means may be found from the concentration of known composts, to lessen the cost of culture and to increase its returns.

For the Farmers' Cabinet.

Philadelphia Agricultural Exhibition.

Mr. Editor,—I was very unexpectedly enabled to attend the Agricultural Exhibition which was held at the Rising Sun on the 29th and 30th of September, and was at once pleased and disappointed—pleased, to find so good an attendance of persons taking an interest in the business before them—disappointed, in seeing the very few horses shown, when compared with the exhibition of last year; and the very poor display of agricultural produce, not too much in the whole to serve up at a good table, setting aside a few large pumpkins—pleased, with the very numerous and excellent machines of almost every kind to expedite labour, especially that noble implement, the Plough, in all its glory, with two of the subsoil variety—with pens of hogs of improved breeds, particularly of those, a cross between the Berkshire and Chester-county breed; and with the peculiarly fine specimens of sheep, showing a vast improvement for the past year;—but *mortified*, to find but two fat steers upon the ground! To be sure we were greeted with the presence of some old friends in the persons of our thorough-bred cattle, and the young stock generally exhibited the improvement which was to be expected from such parentage; but there were others—strangers to be sure—that were not equal to the occasion. On noticing the imported Devon bull in the centre of the inclosure and examining his compactness, I was led to suspect that we are breeding our bulls too large and heavy; forcing their growth while young, by too high a system of feeding; and this evil, I thought, appeared in some of the individuals exhibited, whose enormous growth must unfit them for the service expected from them. Now, in this, as in every thing else, there is a medium, and I suspect that in breeding so costlily and carefully, we are overstepping the bounds of moderation, and unfitting our stock to bear the vicissitudes of climate and a medium degree of exposure, encouraging their growth by over-nursing, with a view to create a fine coat and delicacy of handling.

I should have been content with witnessing the first day's exhibition, had it not been for the desire to be present at the ploughing-match, the thought of which has always a charm for one who has spent much of his time between the handles of a plough, and I was much pleased to find that multitudes besides myself were actuated by the same feeling, for the gathering was far more numerous on the second day than on the first, nor was I disappointed; for although not much was done, it was enough to show that the plough called the Centre Draught, was far preferable for the purpose of *cultivating the soil*, to all its competitors. I had never before seen that plough in operation, but am quite convinced, that in the hands of a good ploughman, it could be made *all but talk*; for although it is said to turn its furrows too flat for *some* purposes, it would be easy with it to lap them at an angle of 45°, and still bury all the sod, manure, or green crops, as effectually as when the furrow is laid flat. Many of the spectators complained that the furrow on the land-side was not cut smooth, but if the coulter was straighter, stouter, and wide at the point, and brought back, so as that the point of the share shall precede it a little, lowering it to the thickness of two fingers only from the share, the land-side would have been cut perfectly smooth: but neither the beam nor the handles of the plough were long enough to *balance*, as they should do, the body of the plough; while the wheel was a libel on a good ploughman.

But the most interesting part of the day's exhibition, was the trial of the subsoil plough; its operations have opened to me a new field for reflection, and I feel an interest about it which I cannot express: it appears to me, that by this opening of the subsoil without turning it up, we secure half-a-dozen advantages at once.—First, it enables the tap-roots of the plants to penetrate and anchor more deeply in the soil. Second, in a time of drought, the moisture can more easily ascend from a greater depth, when it will be retained in the pulverized subsoil as a sponge, and be given out to the plants at a time of their greatest need. Third, in a rainy season, the superabundance of moisture will more readily pass away through the loosened subsoil, especially if the land has been drained. Fourth, by the washings of the manure from the surface-soil, which can now penetrate the loosened subsoil and not be carried away by water resting on the hard-pan, the subsoil will be so enriched, that a small portion of it might be brought to the surface at every ploughing, so that in a little time the depth of the ordinary ploughing may be increased, to the very great improvement of the crops. Fifth, I cannot but believe that henceforth much of the difference of opinion relative to the value of the root-crop will be done away, for the plants will now have the power to penetrate deeper, where they will be followed by the manure in solution, enabling them to support their growth without that lateral spread of the roots, by which they are confined to the surface-soil, exposed to the drought, which is often the cause of a check in the growth of the plants from which they never recover. And the beet and turnip crops may now be grown after rye or wheat, with a full expectation of success, by subsoil-

ing the land, and dressing the top surface with well-composted manure, drilling in the seed and covering it by a slight harrowing—which, together with rolling, might be performed by means of additions to the drill; then, the complaint of the depredations of the plant-louse on the ruta-bagas would no longer be heard—that disease arising chiefly, if not entirely, from defects in the soil or the subsoil; the crops doubling in quantity and trebling in quality, preserving the saccharine juices through the winter and until late spring, without deterioration. And, sixth, although last, not least, is the consideration, that at the time of frost, the crops will not be so liable to be lifted and the roots be broken, for the land being loose and comparatively dry to a great depth, it will not be easily penetrated by the frost; while the roots of the plants, having a much firmer hold of the ground and more out of the reach of frost, will be able to exert a greater resistance and hold on more firmly. Thus, the *rising* will be in a very great measure prevented, and consequently, the *subsidence* of the soil at the passing away of frost—the most trying time by far, for by it the plants are left standing naked on the surface, and then come disease, and its concomitants in every shape. In the usual shallow ploughing, the frost soon penetrates to the hard-pan, and lifts the whole surface at once, its power being increased by a superabundance of moisture, which is often found to rest upon the unbroken surface of the subsoil at that season of the year. So that, had the subsoil ploughing been the only part of the exhibition, I should have been richly repaid for my time and the small amount of expense incurred.

No doubt, many of these subsoil ploughs will be in request: would you inform us where they may be obtained, and at what cost?

JOSEPH STILLÉ.

Luzerne Co., 2d Oct., 1841.

Mr. Prouty, the maker of the Centre Draught Plough, who furnished the Subsoil Plough, is preparing to construct them, and we will take the first opportunity to state when they may be obtained and at what price. It is much to be regretted that the large Subsoil Plough imported by the late James Ronaldson, was not brought into competition; but the great power necessary to work it could not be procured upon the spot, neither was the accompanying apparatus calculated for the common teams and harness of the country. It is a most effective instrument on compact and strong soils, capable of turning up rocks of 200 lbs.; but much of the land in our region can be subsoiled with a lighter tool, the beam and handles of which, however, must be longer and straighter, forming levers to the *body of the plough*, which might be denominated the *fulcrum* of the instrument. Mr. Hulme, the gentleman who sent it for trial, has the thanks of the community: he informs, that it might be seen and examined at the Franklin Institute, South Seventh Street.—ED.

Philadelphia Agricultural Society's Exhibition.

REPORT OF COMMITTEE OF ARRANGEMENT.

THE Committee of Arrangement, in making their Report of the Annual Exhibition of the Philadelphia Society for Promoting Agriculture, held on the 29th and 30th of September ultimo, do so with feelings of more than ordinary satisfaction.

Taking all things into consideration, this Exhibition was more gratifying than any which has preceded it. The display of Horses, it is to be regretted, was not equal to that of former occasions, though it is admitted that the stock of fine Horses has rather increased than diminished during the past few years. Of Neat Cattle, the supply was full, there being only three or four of the long range of stalls unoccupied; while the quality, condition, and appearance, were never surpassed at any Exhibition of the Society. Of Sheep, although they were not as numerous as formerly, they were extremely fine specimens of the breeds to which they respectively belong. The number of Swine was unusually large, embracing some of the best specimens of Berkshires and mixed breeds, and betokening an increased interest in this important branch of farm stock.

Much attention was attracted to the large and handsome display of Agricultural Implements. It appeared, indeed, from the number, variety, and excellence of the utensils in this department, that there was little room left for farther improvement. This means of displaying, by inventors and manufacturers, improved implements of husbandry, before the agricultural public, enables it to form a proper familiarity with their character and value.

Although the amount and variety of the products of the farm, were probably greater and better than usual, yet it would have been more satisfactory to have seen greater interest evinced in this respect. It would certainly have been pleasing to all, if there had been displayed and systematically arranged, the finest samples of all the different kinds of grain, vegetables, &c., with all the necessary information appended, incident to their culture, yield, &c. It is to be hoped that by another year, this deficiency will be fully supplied, and thus one of the most interesting and useful portions of the Exhibition be properly sustained.

The trial of Ploughs and Ploughing, was witnessed by a large concourse of people, who showed, by their anxiety for the result, the deep interest they felt in this most important of all the utensils in agriculture. Tests of this kind cannot but prove serviceable to the farmer.

It is known that the funds of the Society are quite limited, and barely sufficient, by observing the utmost economy in the ordinary expenditures as well as the rate of premiums, to carry it successfully through, without burthening itself with debt. The Committee would therefore beg leave to recommend, as a sure and unobjectionable mode of increasing the funds of the Society, that certain improvements be made in the Exhibition Grounds, and that a small admission sum be hereafter exacted from each visiter. By this means a handsome revenue could be raised, which, while it would prove of the utmost advantage to the Society, in enabling it to enlarge and extend the premiums, would be contributed with pleasure by the thousands of respectable yeomanry, honouring the Exhibition with their presence.

In conclusion, the Committee of Arrangement feel much satisfaction in being able to say, that the Exhibition just closed, attracted a largely increased number of visiters, over the preceding ones, who seemed to evince an unusual degree of interest in, and admiration of, the splendid stock there concentrated from the counties of Delaware, Chester, Montgomery, Bucks, and Philadelphia; and that during the entire two days there was great propriety of conduct observed by the vast concourse of people present, and nothing occurred to lessen, in the least, the gratification which all appeared to feel on the occasion.

The Reports of the different Judges are subjoined.

All which is respectfully submitted.

KENDERTON SMITH,

Chairman Committee of Arrangement.

P. R. Freas, *Secretary.*

Horses.

The undersigned having been appointed Judges of Horses, at the Exhibition of the Philadelphia Society for Promoting Agriculture, award the following premiums:—

To Col. Wilkinson, for the best thorough-bred Stud Horse, Torpedo, Ten Dollars.

To John Weaver, for the best Stud Horse, adapted to the field and road, Gen. Jackson, Ten Dollars.

To Mr. Craven, for the best Blood Mare, adapted to the field and road, Ten Dollars.

To N. Biddle, for the best Horse Colt, between two and three years old, Dan. Webster, Eight Dollars.

For the best Filley or Mare Colt, of same age, Eight Dollars.

For the next best do. do., certificate of merit.

To Mr. Cardwell, for the best Horse Colt, between one and two years old, Tippecanoe, Five Dollars.

To Mr. Alexander, for the best Filley, of same age, Bonny Black Bess, Five Dollars.

September 29, 1841.

David Dorrance, Owen Sheridan,
George M'Clellan, Cornelius S. Smith,

Neat Cattle Over Two Years Old.

The Committee on Neat Cattle over two years old, respectfully submit the following award of premiums:

To Mrs. Roach, for the best Durham Bull, over three years old, Bruce, Ten Dollars.

To Dr. Uhler, for the best do., between two and three years old, Sam Slick, Eight Dollars.

To Mr. Webster, for the next best do., Nicholas I., certificate.

To R. T. Potts, for the best Devon Bull, Merion, Eight Dollars.

To Mr. Nicholson, for the next best do., certificate.

To John Struthers, for the best Ayrshire Bull, Geordie, Eight Dollars.

To N. Biddle, for the best Alderney Bull, Stanley, Eight Dollars.

To James Gowen, for the best Durham Cow, over four years old, Pocahontas, Ten Dollars.

To Paschall Morris, for the next best do., Bessy, certificate.

To J. W. Roberts, for the best do. do., between two and three years old, Victoria, Ten Dollars.

To James Gowen, for the next best do. do., Rosanna, certificate.

To R. T. Potts, for the best Devon do., Isabella, Eight Dollars.

To C. Magarge, for the next best do. do., Cherry, certificate.

To John Struthers, for the best Ayrshire do., Helen McGregor, Eight Dollars.

To G. Uhler, for the next best do. do., Effy, certificate.

To N. Biddle, for the best Alderney do., imported, Jeannie Deans, Eight Dollars.

To A. S. Roberts, for the best Cow of any other breed, Queen of Chester, Eight Dollars.

To James Gowen, for the next best do. do., Kitty Clover, certificate.

To J. W. Roberts, for the best Ox or Steer raised in Pennsylvania, Ten Dollars.

To R. T. Potts, for the next best do., certificate.

To James Gowen, for the best Durham Cow, over two years old, that has not produced a calf, for his "Cleopatra," Eight Dollars.

To Paschall Morris, for his Cow, Belle, for the next best, certificate.

In addition to the fine stock to which premiums have been awarded, the Committee take pleasure in noticing many others on the ground that have given great interest to our exhibitions for several years past, and done great good for the country, as is evident from the astonishing improvement manifested in our young stock. Among those most worthy of particular notice, we would mention the thorough-bred Durham Bulls, Colostra, Prince of Wales, and His Grace, all animals possessing the finest qualities, but having heretofore taken premiums, are now excluded from competition.

Mr. Gowen's splendid cow Dairy Maid, Mr. Paschall Morris', Dr. Uhler's, and Mr. A. S. Roberts' fine cows, many of which had taken premiums, were excluded from offering at this time, but deservedly attracted universal admiration.

Some fine Devon Cattle were shown by Mr. Washbon, on their way from Maryland to New York state. Also, some fine Devons, by Judge Longstreth, which the Committee regret were removed from the ground yesterday, through mistake. Many Cattle were presented by other gentlemen, highly worthy of notice, and which the Committee would take great pleasure to particularise did room permit.

Sept. 30, 1841.

Aaron Clement, Thomas S. Woodward,
Benjamin Serrill, Henry Chorley.

Cattle Under Two Years Old.

The Judges of Cattle under two years old, at the Exhibition of the Philadelphia Society for Promoting Agriculture, award the following premiums:—

To W. Robinson, for the best Durham Bull, between one and two years old, Traveller, Six Dollars.

To R. R. Levick, for the next best do. do., Furbelow, certificate.

To G. Fisher, for the best Bull of other improved breed, John, Six Dollars.

To J. Struthers, for the next best do., Bruce, certificate.

To A. S. Roberts, for the best Durham Bull Calf, between four months and one year old, Pa. Darling, Five Dollars.

To James Gowen, for the best Durham Heifer, between one and two years old, Darby Kate, Six Dollars.

To Owen Jones, for the next best do. do., Ellen Kirby, certificate.

To John Struthers, for the best Heifer of other improved breed, Galloway, Six Dollars.

To John Turner, for the next best do., Media, certificate.

To James Gowen, for the best Durham Heifer Calf, between four months and one year old, Juno, Five Dollars.

To P. Morris, for the next best, do. do., Fanny Kemble, certificate.

To H. Neuman, for the best Heifer of other improved breed, do., Fanny Elssler, Five Dollars.

To I. W. Roberts, for the best Steer, between one and two years old, Five Dollars.

The Committee feel it their duty to add, that the young cattle which came under their notice, though not numerous, were of fine quality and evinced great care in the selection of stock by their breeders. Beside those to which premiums were awarded, a number of excellent and beautiful animals were exhibited, and in several cases vied closely with their more fortunate competitors. There were also some handsome calves under four months old, which by the regulations of the Society were excluded from premiums.

September 30, 1841.

Isaac W. Roberts, Edward Wartman,
John M. Justice, John Kirk,
John Worth, Isaac Newton.

Sheep and Swine.

The undersigned were appointed by the Philadelphia Agricultural Society as a committee to examine the

Sheep and Swine, offered for premium at the Exhibition, held at Rising-Sun this day—and after a careful examination do adjudge the following, viz.:—

To J. Bradley, for the best long-woolled Buck, Four Dollars.

To P. Morris, for the next best do. do., certificate.

To J. Shallcross, for the four best do. do., Ewes, Five Dollars.

To do., for the four next best do. do., certificate.

To A. Hoopes, for the best short do. Buck, Four Dollars.

To O. Sheridan, for the next best do. do., certificate.

To A. Hoopes, for the four best do. do., Ewes, Five Dollars.

To J. Shallcross, for the four best Lambs of any breed, Four Dollars.

To H. Hill, for the best Berkshire Boar over one year old, Four Dollars.

To C. Magarge, for the next best do. do., certificate.

To E. Hicks, for the best do. do. under one year old, Three Dollars.

To H. Hill, for the next best do. do., certificate.

To Thos. White, for the best do. Sow, over one year old, Four Dollars.

To W. Oxley, for the next best, do. do., certificate.

To H. Hill, for the best do. do., under one year old, Three Dollars.

To Thos. White, for the next best do. do., certificate.

To E. Hicks, for the best brood of Pigs, not less than five, Four Dollars.

To H. Hill, for the next best do. do., certificate.

To W. Webster, for Russian Boar, Four Dollars.

To J. Hill, for second best Boar of other breed, certicate.

To G. Uhler, for best Sow of mixed breed, Four Dollars.

To do., for second best do. do., certificate.

The above named Stock must have been owned *and* kept in Pennsylvania, six months (if of that age) previous to Exhibition, to be entitled to compete.

The Committee were much pleased with the display of Hogs in particular, and noticed improvement over last year's Exhibition. The Berkshires were fine, and the crosses from them showed a decided improvement in the mixed breed. The Sheep exhibited were of fine blood, both of the long and short woolled kinds, and showed great and increasing care in the breeding of that useful and valuable animal.

A few fine sheep, not entitled to premium, were exhibited by Mr. Barnes, of Delaware; they were of the long-woolled kind, and fair specimens of that stock.

September 29, 1841.

GEORGE UHLER, JOSEPH CRAWFORD,
ABNER HOOPES, ISAAC ROBERTS.
THOMAS WALMSLEY,

AGRICULTURAL IMPLEMENTS, &c.

The Committee appointed by the Philadelphia Society for Promoting Agriculture, to examine the Agricultural Implements and Products, at the Exhibition held this day, respectfully beg leave to submit the following award of premiums, viz.:—

To D. O. Prouty, for the best Drilling Machine, Three Dollars.

To do., for the next best do. do., certificate.

To S. Slater, for the best Straw aud Hay Cutter, Four Dollars.

To D. O. Prouty, for the next best do. do., certificate.

To J. G. Neavil, for the best Corn Sheller, Five Dollars.

To D. O. Prouty, for the next best do., certificate.

To D. O. Prouty, for the best display of Agricultural Implements, Six Dollars.

To A. S. Roberts, for the best display of Agricultural Produce, such as Grain, Butter, Plants, &c., Six Dollars.

To J. Gowen, for the next best do. do., certificate.

To N. Biddle's farmer, for three pounds very superior Butter, made from Mr. B.'s Alderney Cow, Three Dollars.

There were some fine Sugar Beets from Mr. C. Alexander, Mr. N. Biddle, and Mr. Levick; a large Pumpkin from Mr. Benner, weighing 132 lbs., and another from G. W. Roberts, weighing 125 lbs. There was also a fine display of the Sweet Potato or White Pumpkin, and the "Yankee Squash," from Mr. R. T. Potts; Mr. C. Waters exhibited some fine Corn; Mr. A. Clement, some superior Squashes, Parsley, Butter, &c.

Mr. Norton exhibited a Patent Iron Wagon Hub and Axle, which the Committee would recommend to the notice of mechanics.

There was a number of other articles exhibited, which, although not coming under the notice of the Committee, were creditable to the contributors.

September 29, 1841.

ANTHONY T. NEWBOLD, JACOB SHALLCROSS,
JAMES THORNTON, ROBERT T. POTTS.

PLOUGHS AND PLOUGHING.

The Committee on Ploughs and Ploughing, report—

That there were three Ploughs entered for premiums, and after a fair trial, they award the premium of Ten Dollars, or a medal of that value, to Mr. D. O. Prouty, for his Centre Draught Plough, which required less draught and performed the work better than the others. The work was done in good, tough sod, but cannot be considered a test of their quality or adaptation for general purposes, which can only be ascertained by a trial in various kinds of ground.

Of Ploughmen, three entered for competition, with separate ploughs and horses, and performed their work with skill and neatness, but as they worked with different implements, the Committee had much difficulty in arriving at a conclusion on their respective merits. We however give the preference to Mr. John Adam Strang, and Mr. George Blake, and recommend that the premium of Ten Dollars be divided between them equally.

A Subsoil Plough was exhibited, and the Committee are well satisfied with its performance. They think, under many circumstances, this Plough may be used with advantage, and recommend the Society to award a premium of Five Dollars to the owner, Mr. D. O. Prouty.

September 30, 1841.

NICHOLAS RITTENHOUSE, JOHN L. WILLIAMS,
AARON JOHNSON, DAVID GEORGE.

To Subscribers.

THE amount of subscription for the Cabinet is, by the terms, payable in advance. To each individual this amount is small, and apparently trifling: the aggregate is important to the Publishers, inasmuch as from it, the expenses of the work must be met. The Proprietors intend to spare neither pains nor expense, in making it creditable to themselves, and practically useful to those among whom it may circulate. The low price at which it is put, and the manner in which it is executed, make it obvious that a large subscription list, and prompt payments only, can sustain the Paper. To our numerous subscribers who have complied with our terms, we tender our acknowledgments. We respectfully invite the attention of others to the subject—such of them particularly, as have not yet paid for the 5th volume, which was closed three months ago. The general kindness of Post-masters, and their franking privilege, open every facility for the transmission of money from subscribers to this Office. All would doubtless wish their small bills discharged: the carrying out of that wish, would impart a fresh energy and gratification to the efforts of every one connected with our Periodical.

Single vols. of the Cabinet may be had, neatly bound and lettered, price $1.25, by application at the Office: where also may be obtained, in 5 vols., complete sets from the commencement, at 5 Dolls., half-bound,—together with all the standard works on Agriculture, Botany, and their relative branches.

AN opportunity of doing good, is rarely wanting where there is the will.

Notices.

The Chester and Delaware County Agricultural Society will hold its fourth annual Exhibition and Cattle Show, in Westchester, on the 15th October. Farmers and others interested, are invited to forward for exhibition, their stock, agricultural implements, and vegetable productions. It having been concluded to dispense with a public sale, and adopt the principle of private sales, as is customary in England, persons who intend offering stock to sell, will please give notice to the secretary of the kinds of animals and number, so that they may be entered in the catalogue, that is now open.

Paschall Morris,
2d Oct. *Secretary.*

We have received from Mr. Kenworthy, Frankford, a bunch of the finest Carrots that we have seen the present season; his specimens of Ruta-Bagas are excellent, although the seed was sown so late as the 15th of August. Why were not his agricultural products exhibited at the meeting of the Philadelphia society, on the 29th September?

Our agricultural friends are informed that a model of a Drill has been left at the Office for inspection, which appears likely to supersede the use of all others: it operates on a principle so simple, and with so little friction, that a drill to sow five rows at once, can be made to perform the work of wheat, sugar-beet, turnip, and corn-drilling by the same machine, merely by withdrawing the wooden delivering slides, in a moment of time; so that five rows of wheat may be drilled at 10 inches apart, or, by removing two of the intermediate slides, three rows of peas, beans, sugar-beets, or turnips, at 20 inches; or, by removing the *three* interior slides, two rows of corn, at 40 inches apart; the grains deposited in any quantity, at any required depth, and dropped at any distance, with the most perfect precision—the machine covering the seed and rolling it at the same time. Application for a patent has been made, and it will give us pleasure to inform our readers in our next, when and where they may be obtained. The ingenious inventor is Mr. Joseph Jones, coachmaker, Camden, New Jersey; who informs us that he will deposit for inspection, at the Office of the Cabinet, a Drill of the full size, as soon as it can be got ready.

We have received from Mr. T. Affleck of Cincinnati a copy of the "Western Farmer and Gardener's Almanac, for 1842," for which he will please accept our thanks. It appears well adapted to that meridian, and contains a large mass of agricultural information.

Mr. Affleck's little work, "Bee-breeding in the West," is much approved; will he send on a number of copies for sale, addressed to the proprietors of the Farmers' Cabinet, No. 50, North Fourth Street? Another newly-invented Hive is in preparation, and will be exhibited with those already deposited at the Office, in a few days, at the same place.

We perfectly coincide in opinion with our correspondent W., that far too little attention has hitherto been paid to the all-important business of Ploughing. It is the greatest and most momentous of all our operations, and yet it has been performed by us with a hurriedness of execution almost setting steam at defiance. Instead of taking up the furrow and laying it over with mathematical precision, few ever think any more about it, than to throw it up and let it fall as it will—whether to an angle of 45°, horizontal, or vertical, is to them all *Latin*. We thank W. for his interesting paper on the subject; it will give us pleasure to insert it, with as many more as our practical friends will furnish on the same topic, in our next. Our correspondent's proposal is excellent, and, singular as it at first appeared, is no doubt feasible, and would be productive of incalculable good: we have ever been of opinion, that the operation of ploughing is of sufficient importance to warrant the exclusive attention of our Agricultural Societies, and a day devoted to it at our seasons of leisure, even if it be three or four times in the year, would command and richly repay the attendance of thousands. But let it be understood that the trials be made at a distance from taverns, and the interdiction of all refreshments upon the ground be rigidly enforced; no practical man would require any other *refreshment* than to see a number of ploughs and ploughmen all intent upon the business that had called them together—a noble emulation, worthy the days of Cincinnatus!

The quantity of rain which fell during September, (9th month,) was one inch and eighty-nine hundredths of an inch..... 1.89 inch.

Pennsylvania Hospital, 10th mo. 1, 1841.

THE FARMERS' CABINET,

IS PUBLISHED BY

KIMBER & SHARPLESS, No. 50 NORTH FOURTH STREET, PHILADELPHIA.

It is edited by James Pedder, and is issued on the fifteenth of every month, in numbers of 32 octavo pages each. The subjects will be illustrated by engravings, whenever they can be appropriately introduced.

Terms.—One dollar per annum, or five dollars for seven copies—*always payable in advance.*

All subscriptions must commence with the *beginning* of a volume. Any of the back volumes may be had at one dollar each, in numbers, or one dollar and twenty-five cents half-bound and lettered.

For six dollars paid in advance, a *complete set* of the work will be furnished; including the first five volumes *half bound*, and the sixth volume *in numbers.*

Copies returned to the office of publication will be neatly half bound and lettered at twenty-five cents per volume.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage; that is, one cent on each number within the state, or within one hundred miles of the place of publication out of the state,—and one cent and a half to any other part of the United States—and Post Masters are at liberty to receive subscriptions, and forward them to the Publishers under their frank—thus affording an opportunity to all who wish it, to order the work, and pay for it without expense of postage.

From the Steam-Press of the Proprietors and Publishers.